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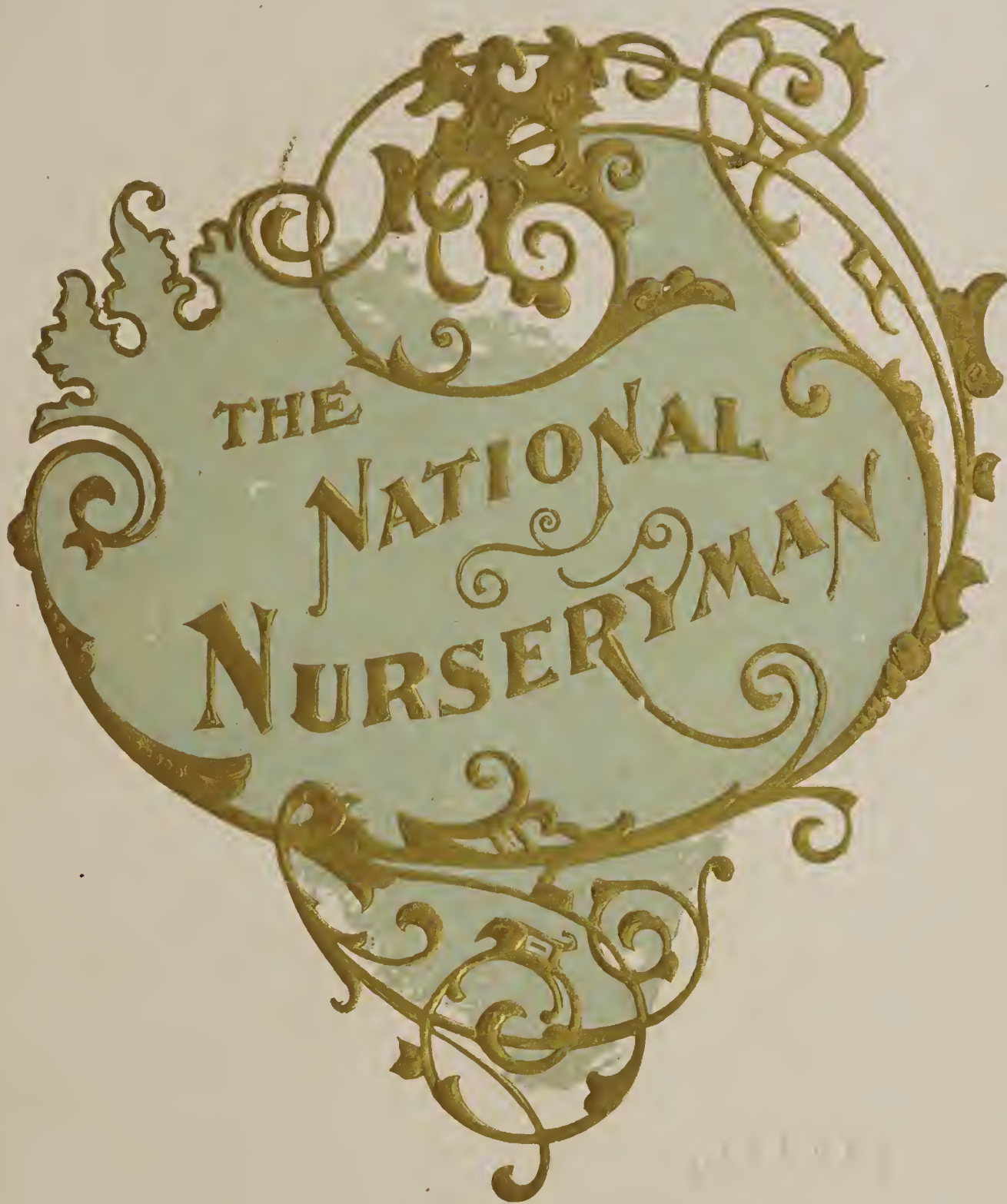
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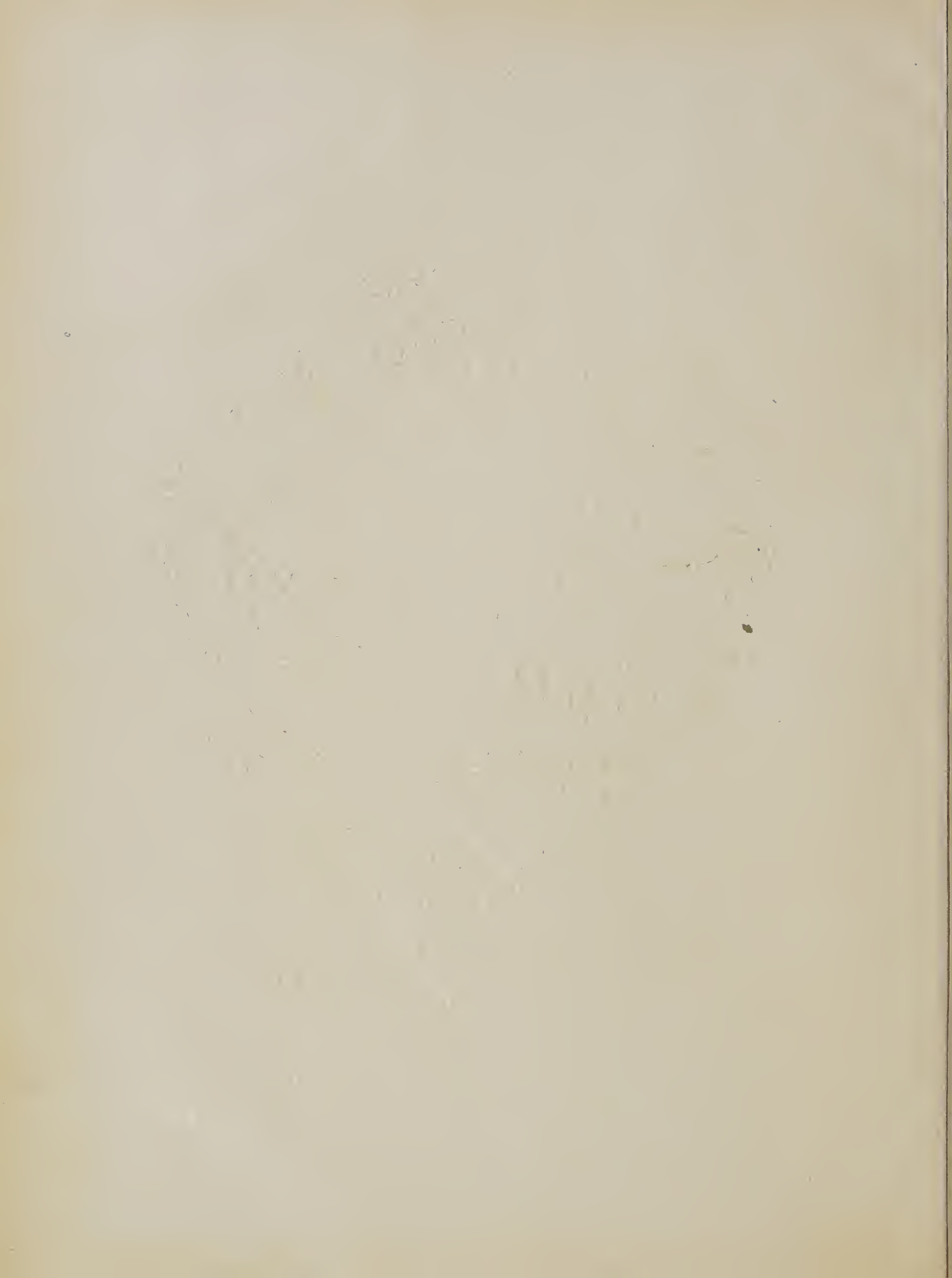
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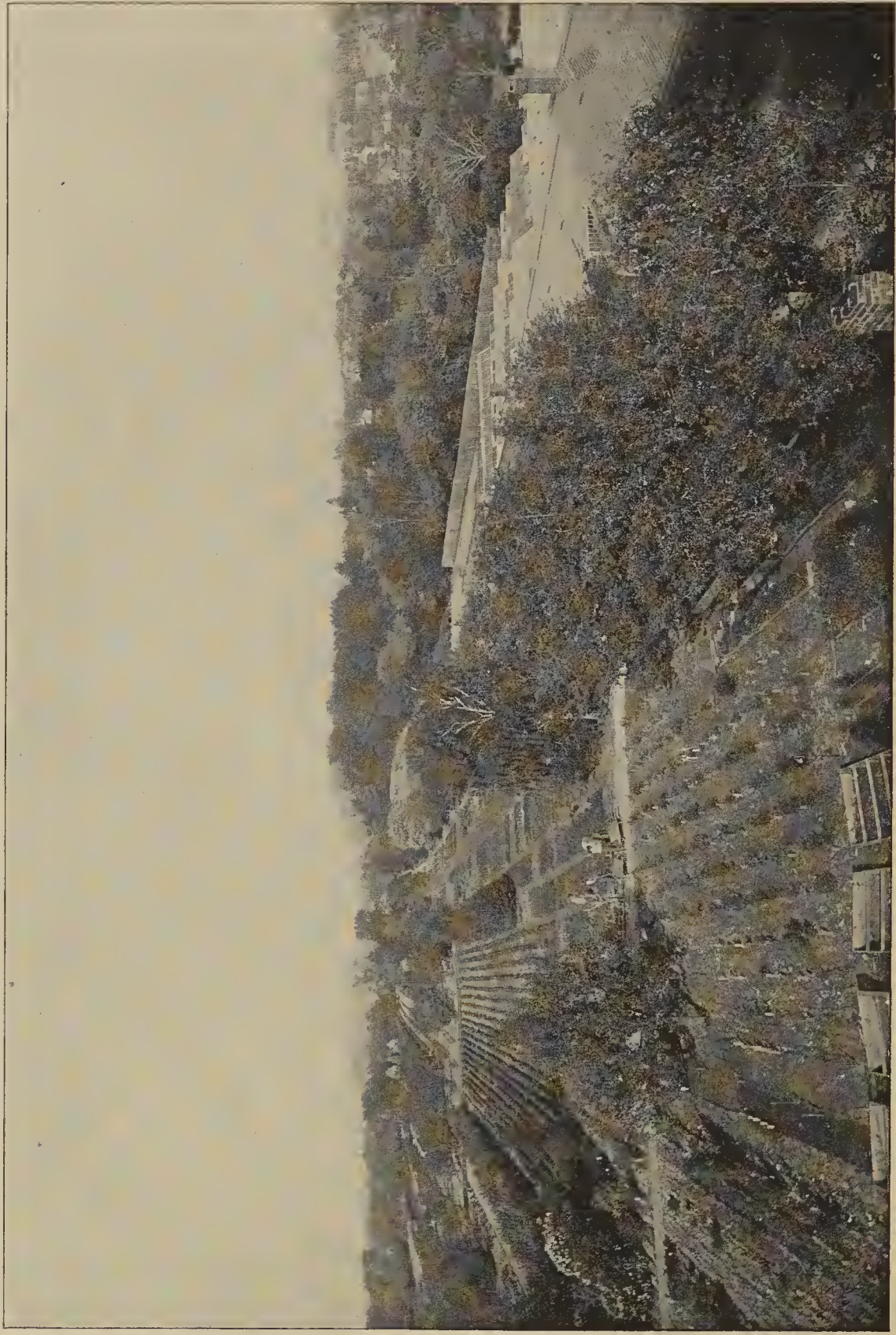






February, 1896.





BIRDS-EYE VIEW OF HOME GROUNDS OF THE MOUNT HOPE NURSERIES.
ROCHESTER, N. Y.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. IV.

ROCHESTER, N. Y., FEBRUARY, 1896.

No. 1.

WESTERN NEW YORK HORTICULTURISTS.

The forty-first annual meeting of the Western New York Horticultural society was held January 22d to 23d, at Music Hall, in Rochester, N. Y. There was an attendance of 400, including many nurserymen, at the opening session. President William C. Barry, of the firm of Ellwanger & Barry, in his annual address said:

There are to-day in New York State thousands of acres of land, which if properly drained would yield handsomely. Is it right that so much land in this great state, with its favorable climate, should go to waste? I think not! Too much should not be undertaken at one time, but if the owners will from year to year, as their means permit, put in drains, their farms in a short time will be ready for tillage and planting. I invite your attention to this question because it seems to me to be one of great importance at this time.

The extremely dry weather which prevailed the past summer over a large extent of territory, and the damaging effects it had on crops, has impressed many growers with the importance and necessity of providing a permanent water supply for their crops. Small fruits, especially, strawberries, raspberries, blackberries, etc., suffered extremely and if water could have been obtained at the time the fruit ripened many crops might have been saved. How to obtain this supply of water is the question. Whether it be possible by the aid of wind power to secure enough and retain it in reservoirs for emergencies is a subject which merits consideration. J. H. Hale, who is to be with us, has just completed extensive irrigation improvements and now has a water supply for his peach orchard and small fruit plantations. A reservoir has been constructed upon a hill near the farm and the water supply is sufficient to irrigate the farm and to furnish fifty families besides.

We expect too much from old orchards. They have already paid for themselves, many times over, and have outlived their usefulness. Still they are permitted to occupy valuable ground, and besides yielding nothing, are an eye-sore, greatly detracting from the natural beauty of a place. During the winter months these uninteresting and unprofitable objects should be removed and cut up into fire-wood; in spring, new orchards should be planted on well-prepared ground, under-drained and sub-soiled. Notwithstanding the prevailing low prices, no mistake can be made in planting fruit trees. The rich lands which are at our disposal, and the remarkably favorable climate which we are blessed with should be taken advantage of. There is a question as to the advisability of spending labor and money on some kinds of crops, but the fruit grower can, if he will, continue to make an honest and good living at this pursuit for years to come.

I have the pleasure and gratification of stating that the insect pests and fungous diseases which a few years ago threatened the entire destruction of orchards and vineyards have been so controlled by remedies and preventives that no great injury need be feared in the future, so long as ordinary care and diligence are exercised by the orchardist. It is true that the beneficial effects resulting from spraying cannot be fully estimated until the treatment is more general, yet enough has been learned to satisfy the most incredulous that spraying is a success, if not an absolute necessity.

The winter was unusually severe. Frost remained in the ground till quite late in the spring and the planting season was of short duration, about one month. Dry weather was a marked feature of the spring season; instead of a heavy rainfall such as may be expected in spring, it rained only twice in six weeks and then only in small quantities and for a very brief period. Unnatural and unseasonable heat prevailed for a week or more in May causing all kinds of fruit trees to blossom at the same time. The intense heat was followed by a sudden and great

fall of temperature and severe frosts occurred on the 12th, 20th, and 21st of May, doing great damage to strawberries, cherries, grapes and vegetables. Beginning with May 30th, Memorial day, and continuing for a week intensely hot weather was experienced, the mercury ranging between 90° and 95° every day. The drouth continued through June and July and August injuring raspberries, blackberries and currants. On September 15th came the first killing frost, but not until late in November did rain of any consequence fall. Eighteen hundred and ninety-five will long be remembered for its extraordinary drouth and yet in spite of it we had bounteous crops.

President Barry referred to the death during the year of John J. Thomas, the first president of the society; Charles E. Cook, one of the largest fruit growers of Western New York; George Moulson, Samuel Moulson, Thomas Smith and Edward Smith, nurserymen, and Ethiel C. Sherman, members of the society.

Among those at the meeting were: Ex-President J. H. Hale of the American Association of Nurserymen; J. J. Harrison, of Storrs & Harrison, Painesville, Ohio; S. D. Willard, Geneva; W. Brown Smith and Wing Smith, Syracuse; G. C. Snow, Penn Yan; E. Moody, Lockport; George A. Sweet, Dansville; Theodore S. Hubbard, Geneva; Professor I. P. Roberts, Ithaca; Professor S. A. Beach, Geneva; William R. Rupert, Seneca Falls; E. Morris, Fonthill, Ont.; Professor VanDeman, Washington; L. V. Woolverton, Grimsby, Ont.; William Smith, George A. Atwood, D. H. Patty, Geneva; H. S. Wiley, Cayuga.

Several papers on horticultural topics were read and the discussions were, as usually, very interesting. The question box proved a valuable feature of the programme.

President William C. Barry and Secretary John Hall were re-elected. The other officers for 1896 are: Vice-presidents, S. D. Willard, Geneva; W. R. Smith, Syracuse; George A. Sweet, Dansville; C. L. Hoag, Lockport; executive committee, Charles M. Hooker, Rochester; C. W. Stuart, Newark; Nelson Bogue, Batavia; E. A. Powell, Syracuse; H. S. Wiley, Cayuga; chairman of committee on native fruits, W. C. Barry; on foreign fruits, George Ellwanger; on nomenclature, W. C. Barry; on ornamental shrubs and trees, George H. Ellwanger; entomology, M. V. Slingerland, Ithaca; garden vegetables, W. Paddock, Geneva; botany and plant diseases, W. Paddock; chemistry, Dr. G. C. Caldwell, Ithaca; flower and bedding plants, James Vick.

GEORGIA FRUIT GROWERS.

The Georgia Fruit Growers' Association effected a permanent organization at its annual meeting in Macon on January 21st. The membership of the association is not confined to Georgians, as the name might indicate. Gentlemen from New England and the western and eastern

states mingled with the natives of Georgia in full fellowship. They had all come together in a common cause, for the Ohioans, New Englanders and others are Georgia fruit growers, even if their residences are located in other commonwealths.

The object of the organization is for mutual protection and for formulating methods whereby the returns for the fruit crop will be larger. Many evils were pointed out in the handling of last year's crop.

A constitution was adopted and these officers were elected: President, John D. Cunningham, Marietta; vice-president, Louis Rumph, Marshallville; secretary, John A. Sibley, Tifton; treasurer, W. O. Tift, Tifton. The following directors will manage the affairs of the association during the interim between the meetings: N. H. Albaugh, Fort Valley; John D. Cunningham, Marietta; J. F. Wilson, Tifton; J. M. Hughes, Dublin; W. T. Cope, Tivola; S. M. Weyman, Griffin; B. P. Moore, Marshallville; W. A. Brannon, Moreland; Rawls McDonald, Cuthbert.

The membership numbers 70 and includes all the prominent growers of the state. The meeting was enthusiastic. The fruit prospects are all the brightest. The trees are about in the same condition that they were at this time last season. This year, in addition to the good prospects, there are about three or four times as many trees that will bear. There are good times ahead if the crop is made, and the arrangements for handling it are the best that have yet been presented by an organization.

NORTHWESTERN FRUIT GROWERS.

The Northwestern Fruit Growers' association at its recent meeting elected the following officers: President, Dr. N. G. Blalock, Walla Walla; treasurer, W. S. Offner, Walla Walla; secretary, C. A. Tonneson, Tacoma; vice-presidents, for Oregon, Emile Schanno, The Dalles; for Washington, R. C. McCrosby, Garfield; for Idaho, H. A. Russell, Kendrick; for British Columbia, John Kirkland, Ladners.

C. L. Whitney of the Northwestern Nurseries, Walla Walla, in the discussion of "Qualities of Ideal Nursery Stock," said:

Ideal nursery stock, in my opinion, consists of trees, shrubs and plants propagated and grown to perfection or nearly so. An ideal tree must have a good, healthy, whole root; a smooth, stocky, symmetrical body, and a well-formed head. In other words, nursery trees must possess three cardinal virtues—perfect tops, bodies and roots, and the greatest of these virtues is roots.

I care not how well and beautiful a tree has been grown in the nursery, if when dug it is taken up by careless hands, whose spades chop and mangle the life-giving, fibrous roots, leaving only half on the tree, and these few badly bruised and broken, the rest of the roots in the ground. Such a tree will get a backset from which it will take a long time to fully recover, and will go to its new location and commence its growth with small degree of confidence, little capital, and credit. It will be a long time before you see big, red apples on that tree. While on the other hand, if its next door neighbor, who has had the same care and cultivation, enjoyed the same soil, climate and sunshine, is taken up by careful hands, taking care to get the roots, then packed in the best possible manner, so that it will reach its destination

in the best of condition, that tree, if properly planted, will scarcely know it has been removed from its training ground and will make a growth that will make the planter feel proud, and the heart of the nurseryman rejoice.

Quite as much depends upon the proper planting of a tree, and its after cultivation as in its nursery growth. Both go hand in hand to make up ideal nursery stock, and ideal orchards.

Some prefer the low headed tree, branched from eighteen to thirty inches from the ground. This is the kind of a head that the planters on this side of the Cascade range generally prefer, while on the other side of the mountains they want their trees headed much higher. Not so high, however, as our grandfathers used to prune, so that they could drive a yoke of oxen with a load of hay underneath the apple tree, with no danger of the oxen eating the apples nor the lower branches brushing off the hay, but prefer their trees headed from three and one-half to five feet from the ground. Many planters, however, prefer one year old trees without any heads formed and what we call straight whips. Then they decapitate the tree when they want the top formed.

I am a firm believer in the whole root tree, either budded or grafted. In my humble opinion it is far superior to the piece root graft. The budding can be done in August and September and the buds should be cut from bearing orchards with the fruit on the trees. Then there will be no possible chance of getting the varieties mixed.

DO NURSERYMEN CONTROL IT?

In the issue of December 15, 1895, of the *Fruit Grower's Journal*, published semi-monthly at Cobden, Ill., the editor, Dr. A. M. Du Bois, says:

The State Horticultural Society held its annual meeting at Kankakee, December 12. It is said there was a fair attendance at the meeting. It is perhaps unfortunate that growers generally have lost confidence in the state society as an organization. They believe it to be run largely in the interest of nurserymen and others who are looking for an office in the society by which they can get their share of the appropriations made by the legislature. The local experiment stations, so far as known, have never yet benefited horticulture, but they afford sinecure offices for men who contribute comparatively nothing to the welfare of the growers. It is a matter for regret that such should be the fact, but it is a fact, nevertheless, however regrettable it may be.

In the next issue of the *Fruit Grower*, a communication from E. A. Riehl, Alton, Ill., director of experiment stations for Southern Illinois appears. Among other things Mr. Riehl says:

I note your attack on the State Horticultural Society in the *Fruit Grower* of the 15th inst. To say that I am surprised is to state it mildly. What you say is not from your own knowledge, for you have not attended the meetings enough to be familiar with the workings of the society.

There are, unfortunately for Southern Illinois, a few men residing in that section who look upon the money appropriated for the society by the legislature, as so much to be divided among whoever can get a chance at it, and they have tried to make such use of the funds as would benefit themselves. Not having been allowed to do so, they go through the country telling every one who will listen that there is a set, clique or gang in control, using the funds for their own benefit.

Who are these fruit growers who "have lost confidence in the society?" They are these same disappointed soreheads. I could name them and count them all on the fingers of one hand. They believe the society run in the interest of nurserymen? Are these complainants not nurserymen also? No, dear doctor, the accusation is not true. There are, in truth, some nurserymen in the society, and they are valuable members, but they do not use the society to further their own business.

Mr. Goodrich has growing in his station 34 varieties of new and untried apples, 35 varieties pears, 94 varieties peaches, 17 of plums, besides cherries, grapes, strawberries, raspberries and other trees, plants and vines. These cover fully three acres, which must be cultivated, records made of their growth and their value when they fruit, and careful report made to the society every year. Mr. Goodrich has just

sent in his bill for '95, amounting to \$71.10. Of this \$40.00 is salary allowed him by the society for superintendence, keeping records and making reports; \$15.00 is ground rent. The balance, \$16.00, is his bill for planting what was received this year, and cultivating and caring for all these trees and plants. Do you consider this a sinecure?

An anonymous communication from Makanda, Ill., is concluded in the same issue, as follows:

I believe that if the nurserymen and politicians connected with the State society could understand the true feelings of the practical horticulturists of this end of the state, they would cease all efforts to run the State society as at present.

I earnestly hope that you will show up the farcical management of our State society. If we can't get the hay, we might bark at the cow. More anon.

SAVING TO NURSERYMEN.

The following from the *Rural New Yorker* regarding the propagation of trees for planting, suggests a saving to nurserymen:

H. M. Stringfellow, of Galveston, Tex., insists that the whole theory and practice of tree planting, as handed down from time immemorial, is wrong. In other words, trees when transplanted, need fewer and shorter roots, rather than many and longer roots. Instead of large holes and carefully spreading out the roots, and working in the soil by hand, as now practiced, he would prepare his soil, stretch a strong line with tags tied at the desired intervals, make a small hole with a dibble a couple of inches in diameter, put the trees down the proper distance and, when a row is done, turn back and tramp thoroughly. The tramping he regards as very important.

His directions for root pruning are: Hold the tree top down, and cut all roots back to about an inch, more or less, sloping the cuts so that when the tree is set, the cut surface will face downwards. Experience has shown that these roots are generally emitted perpendicularly to the plane or surface of the cut. This final pruning should be done shortly before planting, so as to present a fresh surface for the callus to form. If trees are to be kept some time, or shipped by a nurseryman, about two inches of root should be left, the planter to cut back as directed when the tree is set. About a foot of top should be left; more or less makes no difference. If the tree is well staked, three feet may be left without diminishing the growth much.

Mr. Stringfellow's chief insistence is that trees treated in this way will live longer and be far more vigorous and healthy. The planter in his haste for fruit, "demands large trees with plenty of roots and top, to support which and to make them live, the nurseryman often transplants several times. This gives a mass of fibrous roots which will insure their living, but practically dwarfs them and destroys their future usefulness."

The value, from an economical point of view, of his method is claimed to be almost beyond computation. There is an enormous saving to the nurseryman in digging his stock; an equally great saving in packing. Instead of great bales of tops, roots, moss, bagging and rope, and labor of putting up the same, or large boxes containing thousands of pounds of the same useless dead weight, a thousand root and top-pruned trees could be packed in a medium-sized, tight box, with a layer of wet moss in the bottom to maintain a moist atmosphere, and shipped with perfect safety around the world. The saving to the buyer will be even greater. It would be hard, he says, to estimate how many hundreds of thousands of dollars are annually paid by planters to railroads in charges on worse than useless tops, roots and packing.

It appears that Mr. J. H. Hale is the only nurseryman, thus far, that cares publicly to advocate Mr. Stringfellow's method of pruning roots for transplantation. He practiced this close root-pruning upon the 100,000 peach trees set in his Georgia orchard, and less than one-half of one per cent. failed to grow, all making the most vigorous and even growth he has seen in any orchard in America. Mr. Hale says that he is thoroughly in favor of this system of root pruning. It is plain that only trees which make roots readily would thrive if so severely pruned. We dare say that evergreens, magnolias, hickories, etc., could not stand it at all. There need, however, be no speculation about the matter. The advantages or disadvantages of the system may easily be deter-

mined by experiment stations and others who deem it worthy of scientific investigation.

THE GRAPE OUTPUT.

The Chautauqua output of grapes in 1895, amounted to 3,200 carloads of 2,800 baskets each, bringing \$1,209,600. The output in 1894 was 3,600 carloads bringing \$1,159,200.

The Ohio district shipped 700 carloads or 1,960,000 baskets. The Northern Ohio Grape Co., shipped 366,728 baskets by rail, bringing \$52,909.75. The average price per basket in both districts was 13½ cents.

The Northern Ohio Grape Co. handled 391,900 baskets, as follows: Miscellaneous varieties 11,219 baskets, Niagaras and Pocklingtons, 6,327; Concords, 301,106; Delawares, 9,226; Wordens, 7,502; Catawbases, 32,518; Ives, 24,002.

THE APPLE CROP.

Early in January the New York *Tribune* quoted a prominent shipper of apples as follows; "Shipments to Liverpool, London and Glasgow, up to date amount in round numbers, to nearly 550,000 barrels, against 1,156,223 barrels for the corresponding date of last year. In view of the abundant trans-atlantic crops and the immense American crop, it cannot, of course, be expected that exports will be as heavy this year as they were last year, when the European crop failed and there were 1,438,155 barrels exported from this country, which had a good crop. If full crops were gathered in all of the apple growing states, the aggregate would be about one hundred and twenty million barrels, and the market would be so glutted that it would not pay the growers to pick the fruit."

Obituary.

The Western Association of Wholesale Nurserymen has adopted these resolutions upon the death of H. T. Kelsey, president of the association:

Whereas, This association has learned of the death of our esteemed friend and co-worker, H. T. Kelsey, of St. Joseph, Mo.; therefore,

Resolved, That by the death of Mr. Kelsey, this association has lost one of its most valuable and active members, whose merits we recognized by repeatedly electing him president of our association; one whose high character and genial social qualities endeared him not only to each member of this association, but to all his associates.

Resolved, That by the death of the deceased, horticulture has met with a severe loss and the community in which he lived a valuable, public-spirited and upright citizen, whose many good deeds will be remembered and appreciated.

Resolved, That this association tender to the widow and children of the deceased, our deepest sympathy in this hour of their great bereavement, and while it is beyond the power of words fully to express our sympathy, yet we trust they will find much consolation in the fact that the deceased left a rare legacy in the form of an unblemished character which not only his relatives but friends will admire, respect and refer to as a model to follow.

Resolved, that a copy of these resolutions be furnished the family of the deceased and also a copy be furnished THE NATIONAL NURSERYMAN for publication.

By order of the association,

U. B. PEARSALL, }
PETER YOUNGERS, } Committee.
J. H. SKINNER, }

Among Growers and Dealers.

F. H. Burdett, Clifton, N. Y., offers Fay's currants at low rates.

E. J. Hull, Olyphant, Pa., offers 2,000,000 strawberry plants in 100 varieties.

Arthur J. Collins, Moorestown, N. J., is making a specialty of the Koonce pear, which is said to be frost proof.

Five million strawberry plants is the stock with which F. W. Dixon, Holton, Kan., attacks the spring trade. He has others.

C. L. Whitney, Warren, Ohio, who has millions of evergreens, is offering a choice lot of Colorado spruces and chestnut seedlings.

Benjamin Buckman, Farmingdale, Ill., has the largest experimental orchard of apples in the world. It contains 550 named varieties.

White birch, American chestnut, Norway spruce and maple and American arbor vitae are offered by Josiah A. Roberts, Malvern, Penn.

J. A. Cox & Son, Canby, Ore., have one price for all. For the success of this plan they depend upon the judgment of the nurserymen.

A general assortment of nursery stock is offered by C. F. McNair & Co., Dansville, N. Y. Apple seedlings are offered at reasonable rates.

M. B. Hillyard, Shreveport, La., says that Northwest Louisiana is one of the best regions of the United States for the successful growth of the pear.

F. W. Watson & Co., that standard firm of Topeka, are offering apple root grafts, which they declare will grow. They seek quality rather than quantity.

William H. Harrison & Sons, Lebanon Springs, N. Y., make a specialty of large orders. They have a fine assortment for nurserymen and flower lovers.

The Knox Nurseries, Vincennes, Ind., have a fine assortment of apple, cherry and blackberry. Messrs. H. M. Simpson and Sons say they will not be undersold.

A branch of the Horticultural Co., Boskoop, Holland, is located at Rutherford, N. J. L. C. Bobbink is the manager. Clematis, rhododendrons and roses are his specialties.

The Stecher Lithographic Co., Rochester, N. Y., have been adding new varieties to their list of plates; also plate books for the northeastern, central, northern, western and and southern states.

W. E. McElderry, Boonville, Ind., writes: "I would like to ask the American Nurserymen's Association to change my post office address in badge book, opposite No. 43, to Boonville."

The old and reliable house of Smiths & Powell Co., Syracuse, offer rare bargains in fruit and ornamental trees, shrubs, vines, roses and hedge plants. They have extra-sized shrubs and vines and strong budded roses.

Hoopes, Brother & Thomas, West Chester, Pa., were established in 1853. They have special facilities for growing peaches. They have invited special attention this season to that department; also to their line of ornamental shrubs and vines.

The Fonthill Nurseries, of which E. Morris, Fonthill, and W. E. Wellington, Toronto, are proprietors, have, as usual, a good selection of general nursery stock. They know what that means, for they have 700 acres under cultivation, and have been long in the business.

M. E. Hinkley, Marcus, Ia., has offered his place and business for sale, as his family is obliged to live in a milder climate. He has an orchard of 1,200 assorted fruit trees and much small fruit. There are buildings, packing sheds and graft cellar, and young stock valued at \$5,000.

J. O. Kelly & Sons, Jeff, Ala., sent a sample of the Lincoln coreless pear. It was very large and was evidently a fine sample of this variety. But it had been kept for exhibition so long that upon its arrival in Rochester it was beyond examination as to its interior.

John Wragg & Sons Co., Waukegan, Ia., write: "Notwithstanding the unsatisfactory condition of the times, our sales are coming in very satisfactorily, and indications point to a good spring business. Stoddard plum is beginning to be appreciated. The demand bids fair to exceed the supply."

I. L. Buchan, Sturgeon Bay, Wis., says: "We have had warm weather in midwinter and about Christmas time I did some tree digging. What Mr. White says in THE NATIONAL NURSERYMAN about pears and blight makes me think how we saved some Red Astrachan apple trees which were dying. We drove a rusty nail into the roots and last year the trees had a good crop."

Glen Brothers, Rochester, N. Y., write: "We beg to announce that E. S. Mayo, who has been connected with us for several years, is now admitted as a partner. The firm will continue under the old name of Glen Brothers. We take this opportunity to acknowledge the uniform courtesy that has been extended to us by our fellow nurserymen as well as by others with whom we have had business relations, and to express the hope that we may so act towards all with whom we have dealings, that we shall deserve in future, as in the past, their hearty good will."

The general catalogue, for 1896, of the Mt. Hope Nurseries, of Rochester, N. Y. has been issued. It is a useful handbook and manual and is a standard in its line. It is simple and systematically arranged and contains a summary of the contents of Ellwanger & Barry's well known nurseries, one of the largest commercial enterprises of the country. A prominent feature of this establishment is the experimental orchard which was commenced early in the history of the nurseries. No similar attempt on so broad a scale has been made in this country either by individuals or by the government. By the tests in this orchard the firm has been enabled to determine the fruits best adapted to this country. The collections of ornamental trees and shrubs have always been well cared for, correctly labeled and open to the inspection of the public.

ORLANDO HARRISON.

The accompanying engraving represents Orlando Harrison, eldest son of J. G. Harrison, and member of the well-known firm of J. G. Harrison & Sons, Berlin, Md. He is 29 years of age. He entered the firm in 1888. He attends to all the correspondence and superintends the planting of new varieties, which is now an important feature of the business.

J. G. Harrison was born in Sussex County, Delaware, November 15, 1840. At the age of 27 he was married, and at that time started the growing of strawberries. At that time the famous old Wilson was the berry. One acre that stood in bearing for several years netted from \$200 to \$500 per acre annually. This caused a love for fruit culture, and Mr. Harrison bought a farm near Berlin, Md., where he now resides, 170 acres of red clay sandy loam. In 1884 and 1885 he started planting, the soil being particularly adapted to growing nursery stock. He planted at first only ten bushels of peach seed, and had no idea of the increase in planting which has resulted.

When the business was first started only 100 price lists were sent out. Now the firm sends out over forty thousand catalogues in one year, fall and spring. At first the sales were only a few hundred dollars yearly; now they are several thousand. This gives considerable correspondence daily, which is done by assistance.

In 1892 George A. Harrison, the youngest son, was taken in as a partner. He is 25 years of age. He takes care of the growing of peach trees and the budding, digging and packing of trees and plants.

The Berlin Nurseries started eleven years ago have now hundreds of customers added to their list yearly; 550 bushels of peach seed are planted yearly. The firm has purchased 1,000 bushels of Natural Tenn. peach seed for the fall planting. The seed planted should sprout 1,000,000 trees. From one acre of strawberries the planting has increased to 30 acres. The spring planting will include 50,000 plum seedlings and 20,000 apple trees. They have already grown 200,000 peach trees, 25,000 plum trees, 5,000,000 strawberry plants, 800,000 asparagus roots, 20,000 apple trees.

They grow an abundance of Crimson clover as a preparatory crop to plant on, which helps out for fertilizers. Being in a section where there are no diseased trees they grow as fine nursery stock as can be grown in the country. They devote their entire attention to their business.

They are not seedsmen nor floriculturists, but they grow as specialties peach trees, asparagus roots and strawberry plants in large quantities. By this method they have produced some superior varieties of strawberries which they are now offering. One is Berlin and the other is Ocean City, fully described in their spring catalogue.

NEW JERSEY HORTICULTURISTS.

The annual meeting of the New Jersey Horticultural Society was held at Trenton on January 2d and 3d. S. D. Willard read a paper on "Mistakes in Fruit Growing." J. H. Hale talked of peach growing. Charles Parry read a paper on "The San Jose Scale." He advocated the introduction of a parasitic insect to feed upon the scale.

These officers were elected: President, Dr. J. B. Waid, of Essex; vice-president, I. W. Nicholson of Camden; secretary, Henry I. Budd of Mount Holly; treasurer, Charles L. Jones of Newark.



ORLANDO HARRISON.

The Southeastern Iowa Horticultural Society has elected the following officers: President, C. L. Watrous, Des Moines; vice-president, Frank O. Harrington, York Center; treasurer, Wesley Green, Davenport; secretary, C. W. Burton, Cedar Rapids.

The Southwestern Iowa Horticultural Society has elected these officers for 1896: J. P. Hess, Council Bluffs, president; E. W. Lotts, Harrison county, vice-president; George Van Houten, Lenox, secretary and treasurer. Council Bluffs was selected as the place for the next meeting.

The Connecticut Horticultural Society has elected these officers: President, H. R. Hayden; vice-

presidents, W. B. May, John Coombs, Edward Browne; secretary, T. J. McDonald; treasurer, N. F. Peck; pomologist, Dr. G. W. Russell; botanist, S. W. Adams. The society has 295 members.

The Illinois State Horticultural Society has elected the following officers: President, T. E. Goodrich, Cobden; vice-president, L. Small, Kankakee; secretary, H. M. Dunlap, Savoy; treasurer, Arthur Bryant, Princeton. All of these were re-elections except the vice-president. Springfield was chosen for the next meeting in January, 1897.

The Pennsylvania State Horticultural Society has elected these officers: President, William H. Moon; vice-presidents, H. M. Engle, Howard Chase and Henry S. Rupp; recording secretary, William H. Brinton; corresponding secretary, W. P. Brinton; treasurer, Hibberd Bartram. The next annual meeting will be held at Allentown.

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The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSEYMEN.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

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ROCHESTER, N. Y., FEBRUARY, 1896.

THE STATE OF TRADE.

The condition of trade at present is, to say the least, unsatisfactory. Nurserymen report a dullness which is discouraging to many. It was anticipated last summer and fall that the trade of the spring of 1896 would be much better than that of last year. But the expected sales have not been made, and as a result there will be a large amount of stock on hand, instead of the general cleaning up that was looked for.

The primary cause, of course, is the fact that the farmers have little money. No one realizes more fully than does the nurseryman that upon the failure or success of the agricultural industries depends the welfare of the nation. When the farmers refuse to purchase nursery stock, growers and dealers turn to the cities and towns, where more or less trade is always certain, but it is a narrow field compared with the former. A large dealer a few days ago said that his men were averaging but \$1 per week in sales. A few years ago an average of \$10 per week was considered poor business. Wholesalers, too, are complaining.

The outlook is not encouraging just now, but it is a fact that more or less business is being done in all sections and it is probable that those who withstand the ordeal for another year will see increased activity as the result of better crops and the dropping out of those, who by ruinous prices during a business of but a season or two, undermine the entire trade. May it not be that the present conditions are just what is needed to rid the trade of its chief difficulty—low prices?

A LAUDABLE PURPOSE.

There is a double meaning in the expression so often used, "Come and join us and we will do you good." Those who have been "done" at considerable cost are inclined to hesitate in accepting the invitation, but there need be no hesitation on the part of a nurseryman in joining a society which states that its purposes are "to increase the area of tillable land, to restore and maintain the fertility of soils, to improve the methods of tillage, to introduce and test labor saving implements and devices, to combat and control insect pests and diseases, to originate new and choice varieties of fruit, to elicit and disseminate correct information, to encourage a love for nature and to promote rural embellishment."

This is the platform of the Western New York Horticultural Society, as stated by its president, William C. Barry, himself a nurseryman; and upon that platform the society has established a reputation excelled by none, and has a membership of nearly five hundred, including many prominent nurserymen.

And it is believed that the principles above enunciated govern all the horticultural societies of the country and are executed as circumstances permit and almost invariably to the advantage of the nurseryman.

ARE TREES INTELLIGENT?

The Chicago *Times-Herald* says:

R. M. Kellogg, of Iona County, Mich., one of the most successful fruit growers in Western Michigan, and secretary of the West Michigan Horticultural Society, believes that a tree has its likes and dislikes; that it knows its friends and its enemies when they approach, and has a high degree of intelligence generally. He believes trees are as alive to their surroundings as animals, and that their sensibilities must be touched to gain the best results. He has made a lifelong study of fruit and fruit growing. He exploited his theory at the joint convention of Western Michigan horticultural societies in Grand Rapids last week. His position was not controverted by any in attendance, and many agreed with him.

That the practical application of a theory which long ago was extended to vegetable life should be made by a fruit grower of so wide experience as Mr. Kellogg must certainly give the thought more than ordinary interest. If Mr. Kellogg is to be taken literally, it is difficult to agree with him. But all will acknowledge that generally such care as lovers of trees bestow upon their charges produces results which make it appear that those trees appreciate that care and reciprocate almost as if through intelligence.

It is certainly a beautiful thought and appeals to the nurseryman who is daily associated with trees and who, though accustomed to look upon his products from a purely commercial point of view, nevertheless finds occasion often to note the wonderful processes of nature. Thus it is that when Mr. Kellogg advanced his idea "his position was not controverted by any in attendance and many agreed with him."

DURING the last decade southern fruit growers have

had things pretty much their own way and they have recently taken steps to keep pace with changes which threatened to interfere with their prosperity. Heretofore prices for southern fruit were high because the demand exceeded the supply. But during the last year or two the supply has been increased enormously by the activity of large growers, especially in the case of peaches, and methods for marketing the crops systematically become necessary. Such methods will be devised by the Georgia Fruit Growers' Association and the result will be of interest to fruit growers in other sections where the need of organization is manifest.

THE CAUSE OF THE TROUBLE.

In a symposium on the agricultural depression, the *Country Gentleman* quotes James Wood, ex-president of the New York State Agricultural Society, as follows:

We may expect a long and severe contest, that will result in the survival of the fittest. Intelligence and persevering energy will be the winners. Loose, slovenly, old-time methods must be abandoned, and science must be united with practice as never before. Fortunately for the farmers of the State of New York they can stand this fight for existence better than any others in the country, but many of them will of necessity go under. Our agriculture is more diversified than any other in America, almost more than any other in the world. We have more strings to our bow, we draw from more sources, we have great interests with which the fountain of the West does not directly compete. Our orchards, vineyards, wine-presses, hop-yards, bean fields and apiaries, have no competitors there until we reach the Pacific slope. Our close-at-home manufacturing and commercial populations require vast amounts of near-by-grown products, and our dairies, creameries and cheese factories have many advantages of great value. We may take heart where others despond, but when the jubilee of prosperity will come again no man living can foretell.

One of the editors of the *Country Gentleman* says:

If the agriculturists of the United States would cease rain-bow chasing and devote themselves unitedly to demanding, with one voice, and as the one demand on which they are unanimously agreed, that not another acre of arable or irrigable land belonging to the government shall be sold or given away or permitted to come into cultivation or grazing use under any pretence, they would work the one great reform which would bring them prosperity.

THE LOW PRICE QUESTION.

Editor of THE NATIONAL NURSERYMAN:

I hope the following suggestions will find room in your journal and improve like fruit on good ground. Your discussions in the journal last year about advancing to salesmen were worth the price of the journal alone. But let us not stop yet on this subject of low prices. How can the trouble be remedied? Nurserymen should be more careful as to whom they send their low prices, retail or wholesale. Let them first look in a directory, or in the NATIONAL NURSERYMAN to ascertain whether a person is a nurseryman, a planter, or a grower, an agent or a dealer. There are agents who for only one season sell dear new varieties at very low prices and then deliver old cheap varieties for them, not true to name.

Then again many postal cards are hurting honest prices by being sent to different parties where there are too

many agents, just as if every farmer were in the trade as soon as he can graft some trees, or give sprouts to other farmers.

Directories are inaccurate. For instance, nurserymen can save postage by knowing that A. Cooper, What Cheer, Ia., and A. Cooper, Coal Creek, Ia., only four miles away, are the same.

HENRY SCHROEDER.

Sigourney, Ia.

CULTIVATION OF THE APPLE TREE.

Professor L. H. Bailey in a talk on orchard management, at the recent meeting of the Ohio Horticultural Society said that he thought apple orchards would be profitable in the near future, as other fruits were being planted almost to the exclusion of apples.

Apple orchards occupied the land for a long term of years, and received little manure, while commercial orchards of other fruits received annual dressings. Possibly the propagation from non-bearing trees for a series of years has something to do with the barrenness of many orchards. Prof. Bailey was not going to take any chances in this direction but was planting two year Northern Spy, these to be top-grafted from extra productive bearing trees. He knew of a Fameuse tree in Southwestern Michigan, which had borne annual crops for twenty-five years. Another tree of some other variety in Massachusetts was equally productive, and he was to have scions of both varieties. It was very likely, however, that soil exhaustion had much to do with non-productive orchards.

It had been found necessary to give nursery ground a rotation in grain and clover between each two crops of nursery trees, the soil being completely exhausted of elements of tree growth and humus in from four to five years. If this was the case with nurseries, what should we conclude about orchards after standing for twenty, or thirty, or forty years?

The nurserymen of Western New York were using a three-foot drill and sowing Crimson clover in nursery rows the last of July to be cultivated under the following spring. This gave some nitrogen and considerable humus, besides holding the rain water.

Why did he use Northern Spy for a stock to graft upon, and were top-grafted trees more productive than root grafts? Well, in answering the first, he could only say that he didn't know except that everybody used the same under similar circumstances. It was a vigorous, strong, healthy grower, straight and well adapted to the use. It seemed the best for the purpose. Top-grafted trees were, as a rule, more productive than root-grafted, but just why was difficult to answer.

In private or amateur renewal of tops by grafting, the scions were generally taken from bearing trees, but where the work was done by professional grafters, this could not always be said.

KANSAS HORTICULTURE.

F. D. Coburn, secretary of the Kansas State Board of Agriculture, presented the following statistics to the State Horticultural Society at its recent meeting:

It is suggestive that the people a decade and half ago had fruit "on the brain," by their having 7,533 acres in nurseries, while this year they report but 3,894 acres, and in some recent years considerable less.

Of vineyards, there were, in 1881, 4,199 acres; in 1895 (about), 7,200 acres.

TREES BEARING.		TREES NOT BEARING.	
1881.	1895.	1881.	1895.
Apple.....2,154,545	7,529,915	4,058,917	4,440,673
Pear.....68,072	186,874	167,716	304,634
Peach.....5,418,280	3,790,692	4,448,304	1,183,510
Plum.....203,983	883,874	309,008	333,686
Cherry... ..658,948	1,451,716	661,920	484,057
	9,173,828	9,645,865	6,646,560
Total trees in 1881		18,819,693	
" " 1895	20,489,631		

ACRES IN SMALL FRUITS.

	1881.	1895.
Raspberries	3,123	3,489
Blackberries	3,136	4,614
Strawberries	1,477	2,234
Total	7,736	10,337

BUD PEACHES LOW.

J. H. Hale says: "From the nurseryman's point of view, it is preferable to bud peaches close to the ground, because the young stocks are larger there, and more easily worked. It is also cooler and moister near the ground, and the buds 'take' better. From the orchardist's point of view, I can see no possible advantage in high budding, for occasionally the entire top of the tree gets broken off, and new sprouts come out and form a new top. Even on trees five or more years old, if budded high, these sprouts would come from the seedling stock and be valueless. I know of no good argument to be advanced in favor of high budding of peaches." Storrs & Harrison, William Jackson, Charles Wright, T. T. Lyon and Prof. H. E. Van Deman are of the same opinion.

RESULT OF SUBSTITUTION.

Prof. H. E. Van Deman answering a query as to the name of a peach, in the *Rural New Yorker* says:

"The peach is not Mountain Rose, but a very late and very poor little worthless variety, if the specimen received is a fair index of that borne by the trees. The grower says that he has 400 trees set three years, and from the same nursery, but does not say that all the 400 bear fruit like the sample sent, or that more than one tree bears such fruit. All such trees are a serious damage to him—how serious it is hard to tell. He has lost the first cost of the trees, their freight charges, cost of planting and caring for them for three years, the use of the land they occupy for as long a time as the whole orchard will stand, the net value of all the fruit that good trees would bear in all that time, and the worry and disappointment which money cannot fully repay. They must be dug up at once. If the mistake had been discovered the first or even the second year after planting, the loss would have been much

less; but now it would be useless to replant, because young trees, would not succeed among others of bearing age. Taking for granted that the orchard is in a successful peach region, if all the 400 trees are bogus, the damage is not less than \$1,000, because all that has been paid out and done up to date is lost, and a new start must be made. If there are but a few scattered trees of this character, the loss that has been and will be entailed is not less than \$5 per tree. If the orchard consisted of more permanent species, such as the apple or pear, the loss of a few scattered trees would be fully \$10 per tree."

RECENT PUBLICATIONS.

No. 4 of Vol. VII of "Experiment Station Record" contains, as usual, a large amount of valuable matter.

The Horticultural Gleaner is a monthly devoted to the horticultural interests of the South and Southwest. It is published by E. P. Stiles at Austin, Tex.

The schedule of prizes offered by the Massachusetts Horticultural Society for 1896 has been issued by the secretary, Robert Manning. The society offers cash prizes amounting to \$8,050. The rules governing the exhibits may well be taken as a standard.

The minutes of the sixth semi-annual meeting of the Oregon Association of Nurserymen, at Salem October 2 and 3, 1895, have been issued in pamphlet form. It was an interesting and profitable meeting. Two of the most valuable papers read there were published in *THE NATIONAL NURSERYMAN*.

The second volume of the Garden-craft series, entitled "Plant Breeding," has been issued. It is by Professor L. H. Bailey, and is uniform with "The Horticulturist's Rule Book." The contents consist of five lectures and a glossary. In the first lecture the causes for the appearing of new forms of plants, and the fundamental methods for fixing these forms and making them permanent, are presented. The influence of soils and methods of treatment, effects of climate, the change of seed, etc., are discussed. The second lecture expounds the use and need of crossing in the vegetable kingdom, and its value as a means of originating new varieties. The heart of the book is in the third lecture, where specific rules for the guidance of the cultivator are laid down, none of which are to be found particularly set forth in this connection in other readily accessible writings. The fourth lecture provides translations of important foreign opinions on plant-breeding for those who have not at command other languages than their own. In the final chapter, directions for the crossing of plants are given in detail and with full illustrations. 12 mo. Pp. 293. Cloth. Price, \$1. New York. MACMILLAN & CO.

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LONG'S PEAK

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THE "OLD STATE OF PIKE."

[From the St. Louis Republic, January 7th, 1896.]

The County of Pike is older than the State of Missouri itself, having been laid out by the Territorial Legislature in 1819 before Missouri was admitted to the sisterhood of states. The town of Louisiana was laid out in the same year the county was organized by Shaw & Caldwell, the proprietors of the land upon which the town now stands, so that Louisiana and the "State of Pike" came into history at the same time.

At that time the dividing line between the Spanish and French possessions was claimed by Spain to run along the summit of the Rocky Mountains to the forty-ninth degree of north latitude, while France claimed the whole of the territory now embraced by the states of Oregon and Washington. This question was finally settled between the United States and Spain by the treaty of 1819, which was not made and ratified at the date of the passage of the act creating this county.

If the French claim was correct, then the County of Pike extended to the Pacific ocean on the west and to the forty-ninth degree of north latitude. The wonderful area of the county the Territorial Legislature was creating struck one of the early day Solons so forcibly that, rising in his seat while the bill was up for consideration, he exclaimed: "The County of Pike! Why, gentlemen, it is not a county we are creating; it's the biggest State in the Union." And so Pike County has gone down in history as the "State of Pike."

One of the biggest institutions in the city of Louisiana is the Stark Bros. Nurseries and Orchards Company. The trade of this firm extends not only throughout the United States, Canada, Germany, France, Italy, Hungary and other foreign countries, but it has a number of customers both in New Zealand and Australia.

Eighty years ago there came from Kentucky to Pike County the late Judge Stark, then a young man fresh from Old Hickory's New Orleans campaign. He started the nursery and planted the first grafted orchard in the state, having brought the scions on horseback from Kentucky. The business has descended from father to son, and is now conducted by the third generation, assisted by the fourth. This firm has more than 1,000 traveling solicitors on the road, and employs more people in its offices than would be necessary to run a large manufacturing concern. The extensive packing-houses of the company are adjacent to the city, connected with the railroad by special track. From these packing-houses hundreds of carloads of trees are shipped annually. The nursery grounds embrace a number of farms convenient to the city, and even extend to Rockport, Ill., where there is a plant of several million trees. The peculiarity of the concern is the establishment of large orchards. These orchards in 24 states aggregate nearly 50,000 acres, and more than 3,500,000 trees on the partnership plan. The firm is also interested in about as many more trees on the co-operative arrangement.

* * * The nurseries have been beneficial not only to their home, but Missouri owes no little of her prestige as a fruit-growing region to the progress and work of development of this firm. * * *

The exhibits of this firm whenever made, attract great attention, and do much to advertise the State. The firm pays large amounts for new varieties of fruit, and conducts the largest business of the kind in America, if not in the world.

Louisiana firms have more traveling men upon the road for them than travel out of any other city of the world of its size. This, of course, is largely due to the large number of men employed by the Stark Bros. Nurseries. * * *

A piece of nursery ground a few years ago was purchased for \$2,000. It was platted not long ago and sold for over \$14,000. This is but a sample of return upon investment that is made by a solid, substantial Missouri town as Louisiana is.

AS PROMISED

in our last number we now give the names of more varieties which have been added to the list of plates, which heretofore could only be procured hand painted, but are now lithographed by that progressive firm the STECHER LITHOGRAPHIC Co., of Rochester, N. Y. May Duke and Late Duke Cherries; Duane's Purple, Forest Rose, Glass, Quackenboss, Reine Claude and Spaulding Plums. More to follow next month. This firm have also added the following list of Plate Books to their list of supplies: one for North-Eastern and Central States, one for Northern and Western States, and one for Southern States.

Send for catalogue giving list of plates in each.

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The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. IV.

ROCHESTER, N. Y., MARCH, 1896.

NO. 2.

INBREEDING VS. CROSSING.

Efforts are being made in the line of crossing and hybridizing to improve fruits as well as to originate new varieties. Advocates of this line of work have claims of possible improvement and the origin of new fruits along the lines in which live stock is being improved. Detailed reports of the progress are rather meager, while the effort to this date has been considerable. So far as reported, we note that the work is being done by violent crosses, and new creations of claimed value are being made by crossing our common apples of Asiatic origin with our native wild crab apple. Instances of the work are the crossing of the Grimes, Jonathan, Roman Stem, Ben Davis, with a very large crab located in Southern Iowa. It is expected to get the hardiness of the crab and the quality of the finer fruits combined. And if the cross is not satisfactory, it is desired to breed up from the result. While this has gone out officially as society work, from reliable sources it has been stated that the Early Richmond cherry is being crossed with *Prunus pumila*, the Sand cherries of the West. Other work has been done in Iowa experiments in the same line that gives the public a general knowledge of the trend of the experimental work in crossing. We desire to express an opinion largely in the line of inquiry: How are we to get good results out of this line of work.

The crossing principle as applied to improving live stock does not improve and, contrary to popular belief, we think the principle does not improve the human race. Facts of history are against this common error, that the union of races on American soil will contribute a great, amalgamated and powerful race. If it proves a success, it is because it is accompanied by higher intellectual development. Turning to the old world, back to earlier history of the races, we find the opposite true. The Jewish race originated by inbreeding and was developed to its present powerful blood lines by what is known in modern times as "line-breeding." The most vigorous laws were laid down to keep it pure and "line-bred." In this race the Almighty incarnate chose to appear in the greatest perfection of character and physical form which largely contributes to moral perfection. There is probably now no more prepotent blood than that of the Jew.

The Scotch and Irish closely hemmed in by a powerful nation for centuries have, by close line-breeding, developed remarkable characteristics, one ruling the cities of America, the other the peer of excellency in morals, character and philosophy. The little kingdom of Denmark is another inbred or line-bred people of such noble qualities that the greater powers of the old world intermarry with

her royally and she furnishes queens for kingdoms that now rule over five hundred millions of people. Again history repeats the showing that hardy races closely intermarried and developed in mountain fastnesses and on high plains, of but limited numbers, make easy prey of vast populations of rich countries of promiscuously mingled races.

In the breeding of live stock, such cross breeding as is done by the general farmer is and has been a most serious hindrance to the material advancement of the cause of agriculture. The evils of farmers crossing the different breeds, when years of environment and careful handling have adapted them for certain and special purposes, has been one of the most difficult tasks that the agricultural press and enlightened farmers have had to contend against. Viewed from the standpoint of practical and successful live-stock breeding, such crossing as the native crab *Pyrus coronaria*, a native of North America, with the cultivated apple *Pyrus Malus*, of Asia and Europe, or our apple in cultivation—is as violent as effecting a cross, by assistance, of Norman Percheron, with the Shetland; a twelve-pound Light Brahma with a three-pound White Leghorn; Short Horns with Jerseys. The monstrosities produced would be regarded simply as results, nothing else. To improve these results would be a hopeless task to which intelligent breeders would not address themselves.

When improvement is undertaken it is by means of feed, environment, close-line breeding in a breed and where efforts are made to produce anything new of value, sports out of a regular line of breeding are looked after and close "line-breeding" or inbreeding is practiced. If we examine the facts carefully, good results and improvement are hard to secure in the most careful breeding and care of stock. Atavism, heredity and general downward tendency are hard to combat. Improvement is slow. At times the advancement is by feed and care; at times by breeding. With accurate records and well-known tendencies of the individuals employed, disappointments are more frequent than rewards. If the extreme and violent crossing practiced in "scientific cross breeding" in plants is possible to result in the good claimed, such practice is certainly not applicable to breeding in animal life. There has probably been more advance in swine breeding than with any other live stock; and if it were reduced simply to crossing, there would be but a reversion to the original wild hog.

The more valuable fruits that Iowa soil has produced and which are now attracting attention are the native plums which are but selections from wildlings, as the Wolf, Wyant, Forest Garden, Weaver, Rockford, and others. What we have in plums is possible in pears,

peaches, apples and small fruits. I wish to call attention to the fact that we as Iowa horticulturalists have been so engrossed in the crossing fad as to neglect entirely the richest field for valuable work. But \$4 in premiums was offered at the last state fair for awards for seedling apples. When farmers were offering dozens to hundreds of seedlings for examination no members of the experimental committee was on hand to report on them, to offer encouragement to growers, or to make a painstaking report of them, or sift them out. The fact must also be noted that there was \$1,000 at their disposal for general experimental work. We do not think this was intentional neglect, but that the tendency to make seedling production, by crossing, a fad, a sort of horticultural cure-all was a cause.

If the Ben Davis, Jonathan, Grimes, Janet, Wine Sap, in apples, as well as our entire list of cultivated fruits were once found somewhere as seedlings is it not possible that such are still to be found? The amount of seedlings brought to notice in our western states this season is remarkable. Nearly five hundred have been reported to the writer in his county alone and if the facts were carefully gathered and made known it is altogether possible that really the most valuable experimental work in the origin of varieties is going on at the farms. This is materially aided by the fact that in our western states we have large foreign populations from European countries that have brought seed-planting habits with them. Being without fruit, and coming from places where there was an abundance, they plant all seeds carefully, trusting little to obtainable nursery stock.

Plant breeding will give valuable results, but I think only along the line of breeding that verges closely upon inbreeding as we do with live stock, instead of crossing. But it must be within proper limitations. In regarding these the work should be carried along such lines as will improve the best in variety and species and revitalize them with fuller life and greater vigor.

Our principal discouragement in the work is that as operators we must work with unknown quantities. In live-stock breeding it is possible to select individuals with certain lines of ancestry and improve with a knowledge of their entire history. But in fruits, while it is possible to select good vigorous trees, each fruit represents new creations and in the mass of bloom it is just as probable that the operator will work on what may turn out to be an inferior fruit growth, and most likely so because of the great mass of bloom, most of which nature designs to be worthless for fruit. It is a common saying that but one seedling in ten thousand is of probable value. If it were possible to know the fruit that produces that seed we would have much simplified a valuable and effective work in plant breeding.

Harlan, Iowa.

W. M. BOMBERGER.

Missouri is said to have produced 3,684,000 barrels of apples last year. This puts Missouri fourth in the list of great apple-producing states.

WOULD TEACH IT IN SCHOOLS.

Editor of THE NATIONAL NURSERYMAN:

We have heard the complaints of low prices of nursery stock from every direction for the last year. In this, as in all other things, there is never a cause without an effect.

What is the cause in this case? We might point out several causes, viz: The financial contraction, the tariff reduction, high freight and express rates. But the chief cause is with the nurserymen, through jobbers, salesmen and circulars flooding the mail. There is an opinion with some people that to be a man is to be a millionaire, and to be a nurseryman is to be a thousand acre nurseryman, and any grower with less than one thousand acres is irresponsible and not worthy the title of nurseryman. There is not an intelligent nurseryman who is not conscious of many frauds and humbugs practiced in the retail trade. The purchaser soon learns of the frauds, and his love for fruit growing turns to hate, and he scorns every person that calls himself a representative of the nursery business. This is one cause. To induce this man to buy trees again will require great convincing powers.

The nursery contracts with the salesman to go forward and solicit orders, paying the salesman an advance of 15 to 20 per cent. on each order as fast as the orders are sent in. Here is a temptation to the salesman to make bad orders, or in some instances to forge orders to get the advance and keep up expenses; and in most cases of this kind, the nurseryman knows no way of finding out these tricks until the delivery of the stock. Then comes the loss to the nurseryman. This is another cause.

Here in our town I have heard of some fifteen persons who made orders with a representative of a certain nursery in New York or some other place, and a short time after the orders were taken the nursery sent statements to the customers giving the amount of the order. When compared with the duplicate it was found the orders sent in were doubled. This is only a drop in the bucket, and is one "cause." What would an intelligent nurseryman or fruit grower think of me if I were to introduce myself to him as a representative of the only perfect nursery in the United States, and state that we were growing "borer-proof apple trees," "blight-proof pear trees," "frost-proof peach trees," "curculio-proof plum trees?"

The only way out of the "causes" and fallacious practices that nurserymen have to contend with, is to teach the science of the nursery business in the public schools. Let every child, male and female, have a thorough training, not only in the nursery, but also in horticultural science. The greatest number of scholars in our schools come from the farm. Why not educate these scholars in their direct interests? And a good knowledge of horticulture would serve to make the preacher, doctor, lawyer, merchant and mechanic better, rather than taking any good qualities from them.

Marceline, Mo.

S. H. LINTON.

SUBSOILING IN THE NURSERY.

Youngers & Co., proprietors of the Geneva Nurseries, at Geneva, Neb., give this experience: In the spring of 1887 we commenced on our nursery grounds to prepare the ground for planting in the ordinary manner. We plowed the ground about eight inches deep and planted our nursery stock, among which was a quantity of seedlings which were dug the same fall. In order to get the proper length of root to transplant successfully the seedlings, it became necessary to get under them much deeper than the ground had been plowed, which was accomplished by using a seedling digger set to run nearly sixteen inches deep. It required six horses to do this work, and the ground was stirred up as it had never been before. The next season this portion of the field was planted to corn, and the yield was nearly 70 bushels per acre, while land plowed in the ordinary way yielded only 35 bushels. This led us to experiment in preparing the soil, our motto being: "Plow deep and thoroughly prepare the soil before planting." Each succeeding year gave us good results by deep stirring, though we did not attain the full measure of success in our experiments until we began to use a plow to subsoil the entire ground. In the fall of 1891 we purchased a Mapes subsoil plow with which we succeeded in getting down to the depth of sixteen inches below the surface. Our method is first to plow eight inches deep with an ordinary 14-inch stirring plow, which is followed by the subsoil plow running in the same furrow, loosening the soil to the depth of eight inches more, but not throwing it to the surface. This gives us a reservoir sixteen inches in depth to catch and retain all the moisture that falls, and we are convinced that during the twenty-three years we have resided in Fillmore county there has never been a season when the rainfall was not sufficient to fill this reservoir with water before the growing season commenced.

PICEA PUNGENS vs. ENGELMANNI.

A certain party, who deals in Rocky Mountain conifer seed, has been proclaiming by private letter and otherwise, that many of the evergreen growers of the United States, who procure their seeds from other parties, are having Engelmanni seed palmed off on them for Picea pungens. Also stating that many growers are sending out Engelmanni plants for Picea pungens. This started my curiosity and I determined to make an investigation for the purpose of ascertaining the actual facts in the case.

Having a stock of Picea pungens that I knew to be genuine, I cut off the tops of some three-year-old trees that had not been transplanted, and sent samples to ten evergreen growers and other men, who are supposed to be educated in these matters. I simply asked them to name the enclosed specimens. In due time the answers came back as follows: Five said they were Picea pun-

gens. Three said they were Engelmanni. One said they were Picea alba. One said that he did not know what they were.

One of the packages was sent to the chief of the Forestry Division, U. S. Department of Agriculture, Washington, D. C. I will quote it verbatim.

U. S. DEPARTMENT OF AGRICULTURE,
DIVISION OF FORESTRY,
WASHINGTON, D. C., Feb. 14, 1896.

MR. CHARLES F. GARDNER, Osage, Iowa.

Dear Sir—The specimen of spruce sent by you is beyond question Picea pungens: any one mistaking it for any other spruce, especially Engelmanni, is not acquainted with either species. The sharp needle point is absolutely characteristic. Engelmanni has a decided awl point. Also the buds of pungens are larger and lighter-colored. The needles are somewhat deficient in the usual stiffness, which deficiency is common with young thrifty shoots.

Yours truly,

B. E. Fernow, Chief.

One grower sent specimens of what he called Picea pungens and also Engelmanni. These samples were alike, and all were pungens.

Another grower, Mr. Hoyt, sent samples of both varieties that were named correctly.

It will be seen that five out of the ten, to whom samples were sent, are not competent judges in a question of this kind, and as the "certain party" alluded to at the commencement of this article, is included in the five, I have made up my mind that very little deception of this kind is practiced.

Osage, Iowa.

CHARLES F. GARDNER.

EUREKA RASPBERRY.

Among the newer raspberries is the Eureka which is represented in the frontispiece of this issue, and is being introduced by W. N. Scarff, New Carlisle, O.

Of this variety Professor W. J. Green, of the Ohio Experimental Station, has repeatedly stated that an acre of Eureka would yield as much as an acre of Palmer and Gregg combined. It is an early berry, ripening with Palmer, and continues to bear all through the season of Gregg. In size it equals the Gregg; this cannot be said of any other of the early kinds. In growth it also differs from others of its class, as it makes a strong upright bush and does not have that creeping nature of Palmer and Souhegan.

In the ad-interim reports of the State Horticultural Society, at Canton, in December, 1895, C. H. Waid, Fulton County, O., says: "Eureka fruited in my place this season, and I think Prof. Green's oft-quoted prediction, early as Palmer, large as Gregg and productive as both, was very nearly verified. Surely every branch was loaded to its fullest capacity with nice fruit, and indeed some of my pickers reported that they saw countless numbers of other berries hovering around trying to get on."

F. G. Withoft, Montgomery County, O., in his report says: "Eureka promises to be the leading blackcap."

H. H. Aulthfathers, of Stark County, reports as follows: "Old growers are wanting something better than Gregg, Ohio, Souhegan, etc., and I think that Eureka is the one to fill the bill."

Among Growers and Dealers.

Cherry is the specialty of Gustav Klarner, Quincy, Illinois.

Sixty thousand currants are offered by F. S. Phoenix of Bloomington, Ill.

Carl S. Hopkins has begun the nursery and seed business at Brattleboro, Vt.

The Phoenix Nursery Co., Bloomington, Ill., has 600 acres and 13 greenhouses.

Samuel C. Moon, Morrisville, Pa., makes a specialty of ornamental trees and shrubs.

The Norwalk Nursery Co. has succeeded the C. H. Whitney Nursery Co., at Norwalk, O.

A. C. Griesa, Lawrence, Kan., is pushing the Bokara, No. 3 peach; "28° below zero and a crop."

Standard pears are pushed from an extra large stock by J. E. Ilgenfritz & Sons, Monroe, Mich.

Charles J. Brown, of Brown Brothers Co., Rochester, passed a portion of last month in the South.

For Greenboro, Triumph and Sneed peaches, D. Baird & Son, Manalapan, N. J., are headquarters.

Victoria currants can be had this spring of Joseph Harris, Moreton Farm, Monroe County, N. Y.

The Colorado Blue or Silver Spruce is a specialty of the Osage Nurseries, Gardner & Son, Osage, Ia.

Z. K. Jewett, Sparta, Wis., has long been well known as a grower of small fruits of standard quality.

Peach trees free from yellows or rosette are offered in various grades by D. Wing & Brother, Rogers, Ark.

The Red June, Japan and the Splendor are the plums which Stark Brothers, Louisiana, Mo., are pushing.

Brewer & Stannard, Ottawa, Kan., report good sales on fruit trees, forest seedlings, asparagus and pieplant.

The tree digger manufactured by N. A. Whitney, Franklin Grove, Ill., is giving satisfaction wherever used.

H. B. Rusler, Johnstown, O., believes he can convince any nurseryman that his sprayer is best and cheapest.

William Parry, Parry, N. J., has all his stock disinfected and it is believed to be free from insects or disease.

W. N. Scarff, New Carlisle, O., makes small fruits a specialty. He has a large stock for spring and fall trade.

Allen L. Wood, Rochester, N. Y., is one of the largest growers of small fruits in the world, if not the largest.

Wire printed tree labels have been generally commended. They are furnished by Benjamin Chase, Derry, N. H.

For grapes in great variety and immense stock the C. S. Curtice Co., Portland, N. Y., has long been an emporium.

George Acheles, West Chester, Pa., has fine apple trees, Carolina poplars and Silver maples at reasonable prices.

All the old and new varieties of grapes are grown by T. S. Hubbard, Fredonia, N. Y. Mr. Hubbard warrants his stock.

Alexander Pullen, Milford, Del., has large stocks of peach trees and asparagus roots to which he calls special attention.

Peach and strawberry form the text of N. P. Brooks' remarks this spring at his Lakewood Nurseries, Lakewood, N. J.

The Willowdale Nurseries, Rakestraw & Pyle, Chester, Pa., are well at the front with a full line of general nursery stock.

A tempting list is that of the William H. Moon Co. at Morrisville, Pa. This company has a large stock of ornamentals.

Wiley & Co., Cayuga, N. Y., expect to make large shipments of imported stocks this season, both fruit and ornamental.

The Shenandoah Nursery, D. S. Lake, Shenandoah, Iowa, is noted for its choice assortment of fruit and ornamental stock.

At the famous experiment farms of Luther Burbank, Santa Rosa, Cal., grafting wood is offered at reduced rates this spring.

William H. Moon has been elected president and Howard Chase vice-president of the Pennsylvania Horticultural Society.

Samuel D. Willard is receiving strong endorsement for the position of commissioner of agriculture of the State of New York.

Ligustrum Ibot, the hardy hedge plant, is one of the specialties offered this spring by Jacob W. Manning, Reading, Mass.

Ridgely chestnut trees and the famous Miller red raspberry of his own growing are specialties of P. Emerson, Wyoming, Del.

Fred. G. Withoft, Dayton, O., says the Windsor is the best sweet cherry known; the Eureka and Palmer the best raspberries.

The tempting list of strawberry plants shown by J. G. Harrison & Sons, Berlin, Md., this spring brought this firm many orders.

Sphagnum moss of a superior quality may be obtained in small or large quantities promptly from L. G. Thompson, Tomah, Wis.

One of the best known firms in Delaware is Myer & Son of Bridgeville. They have a large trade in peach trees and small fruits.

T. C. Wilson, East Side Nurseries, Brighton, N. Y., is one of the oldest of Western New York nurserymen. He has choice stock.

Jay Wood, Knowlesville, N. Y., makes special prices on car lots of apple, cherry, plum, pear, Russian apricots and Cut-leaved birch.

George Moulson & Son, Union Nurseries, Rochester, N. Y., have a large stock of Horse chestnuts, English elms and Norway maples.

This is the forty-fifth year of the Knox Nurseries at Vincennes, Ind. H. M. Simpson & Sons offer high class stock in varied assortment.

Wherever the Greenville strawberry is named the fame of E. M. Buechly follows. He has ten acres of this berry at Greenville, Ohio.

P. D. Berry, Dayton, Ohio, is willing all should know that fruit plants are his specialty. Mr. Berry and his berries are widely known.

Nelson Bogue, of Batavia, N. Y., made a southern trip last month, visiting Fortress Monroe, Washington, Philadelphia and other points.

Albertson & Hobbs, Bridgeport, Ind., have not had time this spring to note any dullness in trade. Carload lots have been their specialty.

An unusually large and fine assortment of peach trees has been reduced by big sales at the nurseries of W. M. Peters' Sons, Wesley Md.

The Evergreen Nursery Company, Evergreen, Wis., claims to have the largest stock and the largest assortment of evergreens in America.

Peters & Skinner solicit correspondence regarding peach, plum and cherry trees, the double-flowering crab and apple and pear seedlings.

A practical box clamp is a necessity. R. H. Blair & Co., Kansas City, Mo., claim to have the most desirable article in this line that is made.

F. W. Watson & Co., Topeka, Kan., have been busy this spring disposing of a few hundred thousand high grade root grafts that will grow.

The climate and soil of the Maple Avenue Nurseries, West Chester, Pa., have induced Hoopes, Brother & Thomas to make peaches a specialty.

Louis Leroy's Nurseries, established in 1795 at Angers, France, are represented in the United States and Canada by August Rhotert, New York City.

The Niagara Nurseries, E. Moody & Son, Lockport, N. Y., are heavily stocked with peach, plum, pear and cherry; also gooseberries and currants.

The Sedgwick Nursery Co., Sedgwick, Kan., is the successor to Chauncey A. Seaman. This company offers this spring fruit trees and small fruit stock.

Andre L. Causse is the agent in the United States and Canada, for the Andre Leroy Nurseries at Angers, France. They offer azaleas, rhododendrons, etc.

W. T. Hood & Co., Richmond, Va., have been doing the usual large business which is practically guaranteed them each season in peach and general nursery stock.

C. H. Webster, Centralia, Ill., has purchased the nursery long conducted by his father, Jabez Webster, a well-known nurseryman and horticulturist of Illinois.

The name of the Good & Reese Co., Springfield, O., is a household

word. It is well to know just what they offer. A suggestion will be found in another column.

The Vick & Hill Seed Co., Greece, N. Y., has been incorporated with a capital of \$15,000. The directors are John Hill, Edward H. Vick and Frederick W. Vick.

Apple seedlings, one-quarter inch branch, are offered by F. W. Watson & Co., Topeka, Kan.; also two-year Kieller pear at quick sale prices; cherry and apple too.

Lewis Roesch, Fredonia, N. Y., makes the culture of grape vines a leader. He has pear trees in great surplus and would accept plum, cherry and peach in exchange.

Warren H. Manning, son of the well-known nurseryman, Jacob W. Manning, Reading, Mass., has announced his entry upon the career of a professional landscape gardener.

Nurserymen having Pin oaks, 8 to 12 feet, or White oaks, 8 to 10 feet, can dispose of them to William Warner Harper, manager of the Andorra Nurseries, Chestnut Hill, Philadelphia.

C. H. Joosten, of 36 Dey Street, New York, has been appointed to represent Van Namen Bros., seed growers, Holland, for the sale of their true Holland cabbage and other vegetable seeds.

The West Jersey Nursery Co., Bridgeton, N. J., had a big stock this spring of quince, peach, apple and blackberry in leading varieties; also asparagus, strawberry plants, shade trees and evergreens.

J. C. Ferris of Hampton, Ia., does not believe in the plan of agents, but under the existing circumstances in this age of sharp competition they are a necessity. Co-operation, he believes, would be better.

Various treasures of the Rockies are found in finest form at the nurseries of C. S. Harrison, at Weeping Water, Neb., including spruce and pine, columbine and clematis and Rocky Mountain conifer seeds.

C. S. Harrison, proprietor of Academy Nursery, Franklin, Neb., has sold his place there and has moved to Weeping Water, Neb. He will continue in the business of handling Rocky Mountain trees and shrubs.

Thomas Meehan & Sons, Germantown, Pa., believe with THE NATIONAL NURSERYMAN that the best is not too good for the nurserymen. Therefore their catalogue for 1896 is handsomely embossed in colors.

A correspondent of the *Rural New Yorker* who is offered five-year-old apple trees by a nurseryman as a gift, is advised by S. D. Willard, T. T. Lyon, Prof. J. L. Budd and N. Ohmer to purchase, instead, one or two-year-old trees.

The *American Agriculturist* publishes a cut and description of Luther Burbank's experiment farm at Sebastopol, Cal.; also a likeness of Mr. Burbank who was introduced recently in these columns as the wizard of horticulture.

Francis M. Edwards, 53 State Street, Boston, assignee of the Framingham Nursery Co., Framingham, Mass., announces that he will hear the claims of creditors at the Court of Insolvency, Cambridge, Mass., at 9 a. m., March 12th.

T. V. Munson, P. J. Berckmans and T. T. Lyon favor plum stock for grafting plums. J. W. Kerr, of Maryland, suggests the hard-shell almond tree as a stock for plums as it has not been known to have been attacked by borers.

J. C. Hale, who has long been connected with the Southern Nursery Co., at Winchester, Tenn., has sold his entire interest in the business. The company is now composed of N. W. Hale, of Knoxville, and J. W. Shadow, of Winchester.

The Door County Horticultural and Agricultural Society elected the following officers for the ensuing year: President, D. E. Bingham; vice-president, Job Long; secretary, I. L. Buchan; treasurer, Joseph Zittle; librarian, George Allen.

The business of W. J. Watson, nurseryman and seedsman, of Newcastle-on-Tyne, England, who died on January 7th, will be carried on under the same management, and with the same title, in the interests of the wife and children of the deceased.

Mr. Morrill of Michigan, says: "We should plant apples of higher quality than Ben Davis. Thousands of acres of Ben Davis are being set in Illinois, Missouri and Kansas. They are selling in Chicago at \$2.50 per barrel, while the Shiawassee bring \$6."

John Charlton, Rochester, N. Y., is one of the oldest growers in the

trade. Besides handling a general line of nursery stock, he is the special agent for Mr. Thompson's Columbian raspberry, deservedly designated the greatest raspberry introduced in years.

Robert C. Brown, of Brown Brothers Co., Rochester, has a baby and a kodak. The little time he is able to devote to other than the duties of the large and increasing business of the company is spent in developing photographs of the baby in almost innumerable attitudes.

Professor Van Deman says: "Don't plant the Ben Davis in New York. Plant the York Imperial. This is only second in value to Ben Davis. It does well in Missouri, also in New York. The Stark is of poor color and does not sell. The market demands a bright red apple."

M. E. Callahan, treasurer and manager of the Pioneer Nurseries, Salt Lake City, Utah, was in Rochester last month. On February 10th Mr. Callahan and Miss Jennie W. Donnelly, of Mumford, N. Y., were married. Mr. and Mrs. Callahan started at once for their home in the West.

D. W. Leib & Son of The People's Nursery, Anna, Ill., write: "Excuse delay in renewing subscription. We must have THE NATIONAL NURSERYMAN. Enclosed find \$1.00 for 1896. Business is looking up a little with us, though not good as farmers have no money."

J. E. Spaulding, secretary and treasurer of the Spaulding Nursery and Orchard Co., Spaulding, Ill., was in Rochester last month on his way to Boston, where the company has apples in storage. The old firm of J. B. Spaulding & Sons was established in 1837. The company has 600 acres.

J. H. Hale says the consumption of apples is rapidly outgrowing the orchards in the eastern states. The coming most successful horticulturist will be the one who puts the most beautiful fruit upon the market. He considers the Sutton's Beauty the most desirable winter apple to plant.

The export trade of P. J. Berckmans, Augusta, Ga., is increasing rapidly. Among recent shipments was a large consignment to Natal. In the nursery are 16,000 young camellias in two sash houses, 100,000 tea roses in frames, and 18,000 Marechal Neil roses budded on Manetti stock out of doors.

The Franklin Davis Nursery Co., Baltimore, Md., referring to the silver question recently said: "We are well satisfied to accept gold, silver, or even paper in exchange for high grade, young thrifty nursery stock." They have an immense stock of almost everything to be found in a first-class nursery.

W. A. Watson & Co., Normal, Ill., offer a full assortment of fruit and ornamental stock. They are making low prices on apple, pear, plum, and cherry trees, raspberries, grape vines and evergreens. This firm is prepared to bud to order for delivery in fall of 1896 or spring of 1897, pear, plum, peach and cherry.

The second annual report of the Montana Agricultural Experiment Station, at Bozeman, Mont., of which S. M. Emery, at one time connected with the Jewell Nursery Co., Lake City, Minn., is director and horticulturist, has been issued. In the list of publications on file at the station is THE NATIONAL NURSERYMAN.

Irving Rouse, of Rochester, thinks that subsoiling is a damage; that its benefits are only brief, ending with the first heavy rain; that whatever natural air passages have been made by worms, burrowing insects or decaying roots are destroyed by subsoiling; that the disturbed soil runs together, and the last condition is greatly worse than the first.

D. Hill, Dundee, Ill., has what is conceded to be the largest evergreen nursery in the world. His stock comprises nearly 100,000,000 trees, valued at \$200,000. He employs sixty-five men. The nursery was established in 1852. Mr. Hill's exhibit at the world's fair represented a value of \$1,000. It consisted of 6,000 hardy evergreens in fifty varieties.

Herman Berkhan, one of the shining lights of the annual conventions of the American Association, is about the busiest man in New York city among the importers, yet he has time always to greet a caller with a smile which belies the many cares upon his mind. Mr. Berkhan is the sole agent in America for the big firm of Levavasseur & Sons, Ussy and Orleans, France.

Killian & Rice, of El Monte, Cal., will plant fifty acres more to

nursery stock this spring. They now have seventy-five acres in deciduous nursery stock. This will make one of the largest nurseries in Southern California. Mr. Killian, of the same firm, will plant 200 acres in softshell walnuts. He has fifty acres in walnuts, and predicts a future demand for them.

President Underwood, of the Minnesota Horticultural Society, speaking of black raspberries endorses the suggestion of Wyman Elliot that when plants can be procured in quantity, two be planted in each hill; then one at least is apt to grow and thus a waste of land resulting from a missing hill, is avoided. President Underwood thinks it is a good argument in the interest of nurserymen who have plants to sell.

William R. Monroe, of Unionville, O., recently addressed the Lake Shore Farmers Institute at Ashtabula on the subject of the Monroe doctrine. It was a ringing address, interspersed with anecdotes, and it was received with great enthusiasm. Mr. Monroe discussed national questions in a telling manner. On ordinary occasions his doctrine is that which declares that the Sirocco is the most useful tool the nurserymen can possess.

J. H. Hale relating his experience and success in growing peaches by the 1,000 acres, concludes his article with the following sensible remark: "All in all it has been a satisfactory experiment, but the average fruit grower, with moderate capital, and a thorough acquaintance in his own neighborhood, will be safer and better off to remain right where he is, and develop to its utmost possibilities the fruit industry which surrounds him."

The nursery of W. & T. Smith Co., Geneva, N. Y., is one of the most extensive in the country. This well-known corporation this spring calls special attention to its stock of apples, standard and dwarf two-year pears, Downing gooseberry, three-year Industry, Columbian raspberry, Cut-leaved birch, Kilmarnock willow, Carolina and Lombardy poplar, Silver maple, White-leaved linden, American elm, shrubs, vines, hardy roses, and dormant plants of Crimson Rambler rose.

Many nurserymen in Rochester, like those of other sections, use the bicycle in business as well as pleasure. Within a stone's throw of one of the largest nursery firms in Rochester there will be given by C. J. Conolly on March 5th, 6th and 7th, a cycle show which will only be equalled by the big New York and Chicago shows recently held. It will be the most elaborate thing of the kind attempted in the Flower city. There will be an electrical display, beautiful decorations and orchestra concerts each afternoon and evening.

Silas Wilson, of Iowa, says: "Root grafting in my opinion, is the only way a reliable tree can be grown. I don't care if the pieces of roots are no more than two or two and a half inches long. I use good scions, and expect to get roots from the scions. When they are hardy kinds the tree will be hardy, regardless of the original root. The agent will tell the farmer that a tree to be hardy must be grown from a whole root; that without a tap root a tree cannot be hardy. But while this is a very nice theory it is not true, as in any kind of nursery work it is almost impossible to preserve the tap root."

The Storrs & Harrison Co., Painesville, O., issue three catalogues, one descriptive of fruit and ornamental trees, evergreens, grape vines, small fruits, roses, etc.; another, a seed, flower, plant and vegetable catalogue, of 168 pages, and another devoted to Holland and other bulbs for fall planting, winter-blooming plants, etc. No company in the world grows more roses in field nor finer roses than does this well-known concern. It has a full assortment of first-class nursery stock. Just now it is pushing the Gault Perpetual raspberry and the Industry gooseberry. This is the 41st year of this company. It has 1,000 acres and 29 greenhouses.

Regarding the champion budding gang of the River Raisin Nurseries, Monroe, Mich., the *North American Horticulturist* says: "The last season John Schneider won the prize, having budded 4206 trees in 10 hours. Next came George Landrey with 4203 buds. Every budder has his helper, who follows him and wraps the inserted buds. This also requires skill and experience, as a loose or tight wrapping is injurious to the tree. In this work George Heller and Vernie Westgate have excelled. The others averaged 3000 buds a day budding. They truly deserve the title given them by Mr. John Loeffler the genial artist of the nursery: Champion Budding Gang."

NURSERY STOCK FOR POTATO LAND.

B. H. Pugh, Oakland, Kan., writing to the *Kansas Farmer*, says:

Responding to your invitation, I give you the following as an embodiment of my experience in raising potatoes on land previously occupied by nursery stock.

My potato field is Kaw valley bottom land. The soil is sandy loam with a surface soil of eight or ten inches thickness and a moderately soft subsoil, which nowhere shows any trace of clay. The field has been in cultivation twenty-three years, almost every year of which it has produced some sort of crop. Potatoes were never before raised on it. It has never been fertilized, nor has it ever been sown to clover or alfalfa.

Four years ago a crop of apple trees was taken from this five-acre plot, and the tree-digger running under the rows gave the soil the first subsoiling in its history. The two succeeding years crops of seedlings were taken up with the seedling-cutter, giving the land three successive subsoilings. Added to this was the thorough cultivation of the nursery stock and complete annihilation of weeds. The result was that the field was reduced to a deep bed of finely pulverized soil. During the winter previous to planting, this soil absorbed a great deal of rain and atmospheric moisture, so that by spring it was in excellent condition for seeding, being very moist, yet not too much so.

I plowed quickly, harrowed and planted immediately, and was soon rewarded with an excellent stand of potatoes. I place considerable stress on quick plowing and planting. Land plowed and left a few days—such as we had last spring—dries out and becomes cloddy; thus the very moisture needed to start the seeds to sprouting is lost, and the lumps of dirt which would have been broken by the harrow are left to harden and lock up much valuable plant food.

HURTS THE TRADE GENERALLY.

L. B. Rice in a communication to *American Gardening* on the subject of dishonest trading says:

A peculiarly bad case was brought to notice at the last meeting of the Michigan Horticultural Society, at Adrian, one of the members of the implicated nursery firm being present.

A young German, trained as a gardener in his own country, came to this State, and, after working a few years, married a very estimable German girl who had saved some money. They bought an eighty acre farm, paying in their combined savings, \$600. The land was good for peaches; they bought 18,000 trees intending to meet their payments from sales of fruit. This year the trees were three years old, and had their first crop—300 trees were good, and of the varieties ordered; the balance were labeled all right, but were of varieties worthless for the market, so that it leaves the man in a very embarrassing situation. He cannot meet his payments, and must lose his farm. A half dozen trees in a garden are bad enough, but when one prepares the land for thousands of trees, and cares for them faithfully for three years, it is simply ruinous.

The parties are all known, and the facts are vouched for by reliable men; the nurserymen refuse to do anything to make up for the loss.

NATIONAL IN CHARACTER.

Unlike several publications recently started in the horticultural field, which, with little concealment, have for their main purpose the advancement of the sale of stock of their proprietors, THE NATIONAL NURSERYMAN is a strictly independent trade journal, not advocating the interests of one firm or individual above those of another; national and international in its scope, and presenting in its columns a forum into which all may enter who have the best interests of the nurserymen at heart.

ITS STAYING QUALITIES SECURED.

EVERETT BROWN, BLUFF POINT, N. Y.—"Please find enclosed \$1 for THE NATIONAL NURSERYMAN. Its calling is grand and its staying qualities secured."

W. N. SCARFF.

AS SEEN BY BRITISH EYES.

W. N. Scarff was born in 1863 at New Carlisle, O., where he is now actively engaged in the nursery business.

His special line is the growing of small fruit plants, the annual output of which is enormous. To his already large acreage was added in 1892 a valuable tract of 80 acres near Dayton, O., which was known to be especially adapted to the growing of strawberry and sucker varieties of red raspberry plants. At the home place are grown gooseberries, currants, blackberries, black-cap raspberries, etc.

In November, 1895, the nursery and farm of W. H. H. Scarff & Sons was purchased and here will be made a heavy plant the coming spring. This tract contains 144 acres of valuable nursery land. The three farms are within a radius of four miles, and here can be found all the leading new and old varieties of plants in the line mentioned.

Mr. Scarff, is the introducer of the Eureka raspberry which is now claiming so much attention among growers.

Western New York leads the world in the production of dried raspberries. Something like 1,500 tons of the evaporated product are marketed each year. Of this, about 1,000 tons are produced in Wayne county in which the towns of Williamson andodus, which produce nearly or quite half the amount, are the most important centers.

It will often happen that for some unknown reason newly planted trees will not start growing at the proper time, and if not helped along will die. According F. Sibrel's experience for five years hot water is a sure to G. remedy. In 1890 some of his plum and cherry trees began drooping and losing their leaves, which had turned yellow. Thinking that by warming the soil the sap would be started flowing he used about one and a half gallons of hot water for each tree, pouring it into holes about four inches deep, six inches away from the tree and covering immediately. In two days the trees began to show new life, bringing buds and fruit up to this date. After applying the hot water the tree must be watered until rain sets, and then this simple remedy will never fail.

The Arnold Arboretum now has an area of 222 acres, recent additions having been made. Only the Royal Gardens at Kew, England, with an area of 251 acres, exceed the Arnold Arboretum in size.

Floricultural establishments in the United States number 4,659, with nearly forty million square feet of glass, and yet in 1876 there were not more than 1,000 in that country. In a lecture on "The Progress of Horticulture in the United States," given before the Devon and Exeter Gardeners' Society, Mr. A. Outram stated that the value of the present nursery and other horticultural establishments in the United States of America is £8,000,000, while that of the plant sales during 1890 amounted to £2,500,000, and that of cut flowers to nearly £3,000,000. New York leads in the number of nurseries, then follows California, Illinois and Pennsylvania. California and Colorado fruit, Florida oranges, orchid culture in the states, hard-wooded plants and plants of American intro-

duction were all dealt with. The essayist stated that in 1863 Colorado did not possess a single mile of railroad, and in that year William Lee, an Englishman from near Croydon, carted the first fruit trees—apple—from Zoma City, over 700 miles across the plains, and planted them a few miles west of Denver. To-day Colorado has 5,000 miles of railway and 30,000 acres planted with fruit. The growth and demand for fruit and flowers in the chief cities of the states were questions interestingly discussed by Mr. Outram. Mr. Hope commenting on the lecture, said it was interesting to know that, while horticulture in America had advanced by leaps and bounds, a very large number of the leaders of the profession there were Englishmen, or, at least, British. The two great firms of Peter Henderson & Co. and Thorburn & Co., known all over the



W. N. SCARFF.

states, were founded by Scotsmen—emigrants. Though many undoubtedly good things had come from horticultural America, a rather large grain of salt had to be taken with descriptions of their introductions.—*Gardeners' Magazine*.

Joseph H. Pemberton has prepared for a magazine published in London, a list of exhibition roses, compiled from twenty stands of single blooms staged in the chief amateur classes at fourteen of the leading English rose shows of the year, commencing on June 20th and concluding with August 6th. He finds that the rose Mrs. John Laing was staged every time, Alfred K. Williams 19 times, Ulrich Brunner 18, Caroline Testout 15, Beauty of Waltham 14, Marshall P. Wilder 8, Pride of Waltham 7, La France 6, General Jacqueminot 3.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Payment in advance required for foreign advertisements.

 Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Entered in the Post Office at Rochester, N. Y., as second-class matter.

ROCHESTER, N. Y., MARCH, 1896.

NEW IDEAS.

Varying shades of opinion make an interesting whole. We are pleased to note the tendency upon the part of nurserymen to discuss matters connected with the trade. It is the privilege of all to choose their subjects and present their ideas, and THE NATIONAL NURSERYMAN is the forum in which they may address their fellows. This is the course through which all in the trade may become cognizant of latent ideas which often prove almost startling in their originality. Last month we recorded the novel suggestion of R. M. Kellogg, of Michigan, that trees have likes and dislikes; that they know their friends and their enemies when they approach and have a high degree of intelligence generally.

In this issue we present a communication on the subject of the causes of low prices which is the paramount question at present. Our correspondent says that the only way out is to teach the science of the nursery business in the public schools. "Let every child," says he, "male and female, have a thorough training, not only in the nursery, but also in horticultural science." He does not clearly indicate how such elementary training will dispose of low prices, at least for the present generation; but it is presumed that he believes that a wider knowledge of the principles of horticulture would extend the demand for honest nursery stock at fair prices. The extension of such knowledge would undoubtedly result in benefit to the nursery trade. Would not his plan, however, cause a tendency to increase the number of nurserymen with

the acquisition of technical knowledge of the manifold (?) attractions of the trade? He includes both sexes in the candidates for instruction, and we pause in alarm to contemplate the possibility of the entrance of the new woman in the field of commercial plant and tree propagation. But surely, when referring to the girls, he must mean that other nursery business to which they all look forward and for instruction in which they are content to await a mature age.

The idea of our correspondent has already taken form in the introduction of botany in the curriculum of many schools. It is probable that this is as far as it is expedient to go in this direction. Other remarks in the communication call attention to evils which are dying out.

BUSINESS POLICY.

When, in the course of human events, it becomes expedient for one person or corporation to call attention to the qualities which he or it believes are of value, it is pleasant to have a friend step in and do it. We were about to invite a statement of this kind when the mail brought the following which is a fair sample of the voluntary expressions that crowd our files:

OTWELL'S NURSERY.

CARLINVILLE, ILL., January 30, 1896.

NATIONAL NURSERYMAN PUB. CO.,

Rochester, N. Y.

Messrs. Editors:—Pleased find enclosed \$1 for 1896. I am glad the publication of such a journal has proven so successful and trust the coming year may bring increased patronage to you. THE NURSERYMAN is certainly worthy of our best support and I have urged many of my fellow workers to take it. The reports from reliable firms and from different sections of the country is the most interesting feature to me and alone is well worth the price of the journal.

Very truly,

W. B. OTWELL.

It is no longer necessary to argue the importance of a trade journal. Every progressive tradesman admits that it is one of the essential equipments of an enterprising business concern. The cordial support given every such journal, if it be meritorious, proves this.

The subscription list of THE NATIONAL NURSERYMAN has grown steadily from the start, but there are some who are yet "without the pale." With those who have received sample copies, we are sure it must be only a matter of neglect, and we urge them to send on the moderate subscription price, before they close this number, and insure the receipt of the forthcoming issues which will increase in value.

If any nurseryman has been so unfortunate as not to have seen the previous issues of the journal, we will gladly send him a sample copy and put him in touch with the modern methods which characterize the successful efforts of his fellow tradesmen.

Allow us to remark as a reminder that procrastination is one of the chief obstacles to success. Subscribe now, and we are confident that you will keep your name on our list.

LINCOLN CORELESS AND KIEFFER.

Editor of THE NATIONAL NURSERYMAN:

We note in your issue of February, which, by the way, is a very good one, an item relative to the Lincoln Coreless Pear. Considering the fact that there seem to be so many conflicting reports relative to this pear, you will pardon us for occupying any of your valuable time, but we desire to give what little information we have relative to this fruit.

We have seen samples of it during January, and they were very fine indeed, larger than the largest Keiffers which are very large pears in New Jersey. These samples were exhibited at Trenton at the recent horticultural exhibition, and for size, shape and color, cannot be excelled for the season. As to quality, they are not quite equal to Anjou as we are familiar with that at Rochester. The tree is an exceedingly straight and vigorous grower in the nursery. This information is of our own knowledge. As to the productiveness, we cannot say.

The Kieffer pear which has been abused so much in Western New York horticultural meetings, but which S. D. Willard of Geneva, N. Y., has always recommended highly, is being more largely grown throughout the coast regions than ever before. Many orchards are to be found in this vicinity containing thousands of trees.

We know of one orchard within six miles of this town, which is one-half mile square. The fruit in this orchard was as highly colored last season as any Vermont Beautys we have ever seen. All Kieffers in this section are exceedingly juicy. While quality is not the highest, it is quite agreeable. The cider made of this variety of pear will yet come into commercial prominence. We think it has remarkable medicinal qualities.

Moorestown, N. J.

C. F. MACNAIR.

EFFECT OF WHOLESALE CATALOGUES.

Editor of THE NATIONAL NURSERYMAN:

I notice your lines in THE NURSERYMAN of February headed, "The State of Trade," and "The Low Price Question," by Henry Schrøder.

When I was younger I sold books, and when I found a man that had a publisher's catalogue, I found I had just as well go on, for I could not sell to him; nor did one out of five hundred of them purchase of the publisher. So trade was lost.

It is the same way with people in regard to buying nursery stock. I hardly think I am wrong if I say that one-third of the people of this country have one or more nurserymen's wholesale catalogues. Such people do not buy from the nursery as I can testify, and when an agent approaches them his high prices and the wholesale low prices loom up before him and he does not purchase from any one and his trade is lost.

There are two others in this county besides myself who

raise a little nursery stock to sell, and a very little at that. One of them has this season been going around showing the wholesale catalogue to the public, and comparing the prices with those of the retail catalogue. Who is this benefiting? Either retailer or wholesaler? There is no danger of these ordering from any one, for they told me they could not pay me for two persimmons they wanted. Send on your catalogues to such people, and also to people not in the trade, and if trade does not continue to fall off, I will own I am a fool.

Mason Nursery, Mason, Texas.

J. T. WILSON.

GOOD ADVICE REGARDING SOCIETIES.

Editor of THE NATIONAL NURSERYMAN:

What you say regarding horticultural societies in the last number I consider O. K. We find some trouble in getting a very large membership to our local horticultural society as there are many who say "it is only a ring, and they run it for the interest of their business."

Now, I know this to be false, at least in most cases. Of course, there may be some cases where it is done. In fact where it is done those in the so-called ring are the only ones who are members and, of course, they have to run it. If people do not want the so-called ring to run things why do they not join the society and then they will have something to say. In most cases the kickers, you will find, do not attend the meetings even if they are members. My advice would be to the fault finders, if you are members attend the meetings regularly and take an active part in all the business. Get all the members you can and do all in your power to have interesting meetings. If not a member join at once and go to work.

Sturgeon Bay, Wis.

I. L. BUCHAN.

LOVETT NURSERY COMPANY.

Regarding the Lovett Nursery Co., a Red Bank, N. J. paper states:

The recent embarrassment of the Lovett Nursery Company, which threatened to be serious a few weeks ago, has been overcome and the company is again on its feet financially. John T. Lovett, the founder of the nursery, has bought up almost all of the outstanding stock of the company, and the concern will hereafter be under his sole management. The amount of stock bought by Mr. Lovett during the past two weeks amounts to nearly \$40,000. With the stock previously held by him, this gives him a great majority of the stock of the company.

Mr. Lovett's final purchase of stock of the company was made Tuesday, January 14, and the company will immediately be reorganized. Edmund Wilson, of Red Bank, is one of the directors of the company. J. H. McLean, the former secretary, has resigned, and Hon. W. Tabor Parker, who is also one of the directors, was elected secretary in his place. As soon as the reorganization is completed arrangements will be made to pay off all claims against the company at their face value. The seed department of the business will be continued. The catalogue for 1896 is now nearly ready for the press and will be issued about the first of February.

The nursery will be continued as a corporation, but the directors are working in harmony, and further internecine strife or financial difficulties are not likely to occur. The claims against the company now outstanding amount to \$20,000.

The assets of the company amount to \$113,382, and the liabilities to \$30,342. Assets over liabilities, \$80,040.

Foreign Notes.

The supply of apples from Normandy this year exceeds the demand in Paris.

Just one hundred years ago the Chili pine, *Araucaria imbricata*, was introduced into England.

Great activity prevails at present in Holland in the matter of technical education in horticulture.

A national rose society for France has been established, at Lyons, with M. Vivian-Morel as secretary.

In the spring of 1897 will be held, on the occasion of the twenty-fifth anniversary of the Berlin Horticultural Society, an international horticultural exhibition.

The Saitama Nursery Co., 26 Tateno, Saitama-Ken, Japan, has been established for the direct exportation of plants, seeds and bulbs and especially Japanese lilies.

In the garden of Mrs. Fitzwygram at Larkfield, Hampton Hill, England, the plan of planting apple trees in the shrubbery, for the beauty of the apple blossoms has been followed.

The chairman of committees for 1896 of the Royal Horticultural Society are: Scientific, Sir J. D. Hooker, K. C. S. I., C. B., F. R. S., etc., Sunningdale; fruits, Philip Crowley, F. L. S., Croydon; flowers, William Marshall, Bexley; orchids, H. J. Veitch, F. L. S., Chelsea.

Reine Claude and Mirabelle plums are the varieties preferred by French growers; no other kind can compete with them in the quality of the fruit when fresh, and also for culinary and household purposes, except only for drying and for "prunes," when other varieties should be chosen. Near Paris, in the market gardens, plums are to be seen at every step, especially the excellent Reine Claude variety, and it is the same in every other large town; 2,500,000 kilos. of Reine Claude and 1,500,000 kilos. of Mirabelle are sent to Paris from all parts every year. In several of the villages near Bar sur-Aube, the Reine Claude trees in the vineyards have produced plums to the value of 60,000 francs in one crop. Near Sainte-Menehould the amount has been known to reach 80,000 francs. In 1874 the village of Vitry-le-Brulé (Marne) sold 100,000 francs' worth of plums. In Picardy, the Beauvieux commune (Aisne) is literally covered with Reine Claude plantations. The inhabitants realize an extraordinary large sum by the sale of fresh fruit and by distilling that which is over-ripe. The Marne valley, the heights between Nesles and Condé (altitude 230 mètres), are, so to speak, simply "wooded" with plum trees. In 1878 the trees were so laden with fruit that the crop realized as much as 75 francs per tree, the gathering expenses being paid by the purchaser. In 1882, in the Brie, a grower near Meaux, estimated the produce of one hectare of Reine Claude to be worth 4,000 francs, the trees being ten years old. One hundred-weight of ripe plums has been known to bring in Paris as much as 48 francs, all growing expenses deducted.

UNNATURAL GARDENING.

The Independent and *Garden and Forest*, of New York city, have been discussing the subject of fancy bedding or "unnatural gardening." *The Independent* says:

We suppose there is not a more intelligent horticultural journal in the United States than *Garden and Forest*; and for this reason we venture a few words on a subject which it frequently touches on with most contemptuous expressions, that of "floral emblems."

The reference in these paragraphs is to the showy beds in set colored patterns, made of coleuses, alternantheras, lobelias, etc., sometimes made to represent badges of army corps, and on the latest occasion in Boston the monograms and mottoes of the Christian Endeavor Society. Every visitor to Boston during the late meeting of that society, visited the Public Garden, and saw these beds prepared with great skill, and which certainly gave pleasure to ninety-nine out of a hundred of those who sauntered along the broad walk, on either side of which they were displayed.

But we are told that we ought not to like to see them, that they are unnatural, "horticultural abominations," "vulgar," examples of "bad taste."

Perhaps so, wise pundit; but we would like to know why. The common taste approves them, the taste of the common people, for whom they were made, the people who pay the taxes. They are "generally praised by the press," if not by the professors of high horticulture. This ought to be some reason for providing them. It is true they are not naturalistic, but what art is? There is not an abler or more sensible article in our symposium this week than that which proves that we are not to "follow Nature" with a capital N in education. The purpose of horticulture is not to follow nature but to change and improve it. What is a Bon Silene rose but a brier made unnatural? What is more unnatural than the specimen chrysanthemum, all the buds pinched off, and leaving one monstrous flower at the end of the stem, all for the display of a beautiful monstrosity? Why, the very issue of the journal from which we have taken these extracts recommends the Japanese yew for "topiary" effects, and what is "topiary" but the trimming of trees and shrubs into fantastic shapes of birds, animals, squares and rings, just "horticultural abominations," which, however, give pleasure? And this same issue has another word to say in appreciation of the old-fashioned formal beds of the last century gardening, all unnatural obominations.

In the course of an extended reply *Garden and Forest* says:

We believe that formal gardening is a legitimate form of art, but it does not follow that we approve of all formal gardens. A design conceived by an artist with a refined sense of color and form, and with constructive ingenuity, is one thing, but a pattern bed, which is ugly in line and crude in color, is quite another. Every one has seen geometrical flower beds of such elaborate pattern that they never can be properly executed with plants as materials. Even where they are not intrinsically bad—that is, where the figure is pleasing and the colors are not constantly at war with each other—they are often placed where they are out of harmony with the general design, and with the special features about them. Wherever in a public garden the recognized canons of art are violated it is the province of a journal devoted to the subject to criticise such displays, and we have not hesitated to appeal to those in authority and who are, therefore, in a substantial way educators of the people, to furnish examples of gardening which will not offend the purest taste. But there are worse sins than those we have named, and there is no occasion here to characterize such efforts as the portraits of eminent men or the maps of different states wrought out on the turf with houseleeks and echeverias. Such subjects, with the imitations in color of flags and banners, badges and mottoes, are too trivial for serious consideration. They discredit the very name of garden art. Wherever used they can only disfigure our parks, and are accurately described as horticultural abominations.

THE COMING IRRIGATION CONGRESS.

A recent trip to Phoenix in the interest of the fifth Irrigation Congress by the proprietor of *The Rural Californian* revealed a satisfactory condition of things. In the first place the business pulse of Central Arizona and its metropolis beats regularly and strong, and is therefore in a healthy condition; and in the second place the people, and particularly the commercial interests, are keenly alive to the importance of making the coming session of the National Irrigation Congress an emphatic success. The preliminaries are now well under way, the necessary committees have been appointed, and the machinery set in motion to secure a large delegation from all the arid states and territories and also from abroad. No effort will be spared by the energetic business men of Phoenix to secure a large attendance.—*Rural Californian*.

Recent Publications.

Our Horticultural Visitor, published by E. G. Mendenhall, Kimmundy, Ill., is now a full-fledged monthly.

American Gardening, devoted to gardening in all its branches, which has been issued semi-monthly, is now issued weekly.

Professor S. A. Beach of the New York Agricultural Experiment Station is the author of a comprehensive bulletin on currants.

"Vegetables for the Home Garden" is the title of a little book of 128 pages, published by W. Atlee Burpee & Co., Philadelphia. It is illustrated with 75 engravings and has an appendix giving planting tables.

The name of the *Grape Belt* has been changed to *Fruit*. It is published by E. P. Harris at Dunkirk, N. Y. The monthly will devote especial attention to the culture of grapes as heretofore, but all fruit will receive due attention.

Two valuable bulletins, "The Pear Psylla and the New York Plum Scale," and "Wire Worms and the Bud Moth," by Professor M. V. Slingerland, have been issued by the Cornell University Agricultural Experiment Station at Ithaca, N. Y.

Part II. of the Transactions of the Massachusetts Horticultural Society for 1894 contains in its 445 pages a large amount of interesting and valuable material. Besides the transactions of the eleven business meetings there are reports of committees and officers which contain information on a large variety of subjects connected with horticulture.

Bulletin 109, of the Cornell station, treats of the geological history of the Chautauqua grapebelt. It is by R. S. Tarr, and will prove of special interest to the vineyardist of Chautauqua County, N. Y. It is of general interest in showing how geological research may be applied to horticulture, thus indicating the advance in recent years in the practical application of science to the fruit industry.

Of all the treatises on forest preservation none is more timely, more interesting or more valuable than the 90-page book by J. O. Barrett, secretary of the Minnesota Forestry association, under the title of "The Forest Tree Planter's Manual." It is a practical, comprehensive and systematic discussion of an important subject. The main features of the forestry question are treated in a manner which is sure to interest all interested in trees. Minneapolis: THE PROGRESSIVE AGE.

One of the most interesting of the many valuable bulletins issued by the Cornell University Agricultural Experiment Station, under the direction of Professor L. H. Bailey, is Bulletin 110, "Extension Work in Horticulture." The contents prove that the light is indeed not hidden beneath a bushel basket, as shown on the title page. Professor Bailey is a hard worker and he has devoted much time and care to the development of the possibilities afforded by the appropriation last year of \$16,000 by the legislature for horticultural experiment work and education in sixteen counties of Western New York. The bulletin of 40 pages presents in detail the work that has been done, and from the results and the interest manifested it is safe to say that this work will not be allowed to drop.

On the table side by side at the Wadsworth House, Cambridge, Mass., the home of the clergy of Harvard, lie peaceably two of the great rival dictionaries, the Webster International and the Funk & Wagnalls Standard. In the former is this inscription:

"To the Harvard University, for the use of the staff of University preachers—for the correction of their English."

Phillip S. Moxon,

"Feb. 28th, 1895.

of the staff of 1891-5."

This caught the eye of Bishop Vincent, who presented a copy of the Standard with the following inscription:

"To the Harvard University, for the use of the staff of University preachers, thinking that *the very best* is not too good for them.

John H. Vincent,

"April 8th, 1895.

of the Staff of 1893-5."

We have taken occasion to call attention to the merits of that beautiful publication "The Book of the Fair," as it was issued in parts from the publishers' in Chicago. The work is now complete and it stands as imposing a monument to the perfection to which the art of printing has arrived as was the World's Columbian Exposition to the arts and

sciences generally. The wide experience of the publishers in the highest class of typographical work had prepared them for this undertaking. No efforts were spared, no money or time withheld which might tend to the achievement of the highest results. The concluding numbers of the work are fully up to the standard of their predecessors. The choicest literary, artistic and mechanical contributions prove the labor and expense bestowed and make it the acme of an illustrated description of the greatest achievement of modern times. In 25 parts: paper covers, \$25. Special prices on bindings. Chicago: THE BANCROFT CO.

The proceedings of the nineteenth annual meeting of the Georgia State Horticultural Society are of special interest. The society embraces in its membership some of the most prominent nurserymen and horticulturists of the country. P. J. Berckmans of Atlanta, is the president; G. H. Miller of Rome, is the secretary, and Louis A. Berckmans is treasurer. All of these are nurserymen. Thomas Meehan and J. H. Hale are honorary members. Among the very interesting papers read and discussed at the meetings on July 31st and August 1st and 2d last, were those entitled "Grape Pruning and Training," by Hugh N. Starnes, horticulturist at Georgia Experiment Station; "The Pear Industry of South Georgia," by B. W. Stone, and the addresses of President Berckmans and Secretary Miller.

It is rarely that the horticulturist will pick up a book of greater interest along a special line than the little volume entitled "The Evolution of Horticulture in New England," by Daniel Denison Slade. It is handsomely printed and bound in the modern style, which characterizes all the publications of the Putnams of Boston. The author has elected to treat the subject somewhat broadly, yet with a strict adhesion to the history of the section under discussion, and an easy transition from period to period, which first attracts the curiosity of the reader and then commands his attention to the end. Under the caption "preliminaries" Mr. Slade outlines the gradual evolution of horticulture from the earliest record of man. Then referring to first steps in horticulture in New England he quotes from writings of the seventeenth century which recorded the fact that in the Massachusetts plantations were "turneps, pumpions, muskmillions, cucumbers and onyons;" that in the woods, "without cyther the art or the helpe of man there were strawberries in abundance, very large ones, some being two inches about: one may gather halfe a bushell in a forenoone. In other seasons there bee gooseberries, bilberries, resberries, treackleberries, hurtleberries and currants." In the 40s of the seventeenth century Governors Endicott and Winthrop exchanged many courtesies. Both were interested in the planting of trees. To John Winthrop, Jr., on March 19, 1645, Governor Endicott wrote: "Let mee say trulie I account not myselfe to be the lesse engaged onto you concerning what you wrote, for any such small courtesie as a few trees. What trees you want at any tyme, send to mee for them, & I will supply youe as longe as I have a tree." John Josselyn, Gent., in his account of his departure from New England, October 11, 1639, thus alludes to Winthrop's orchards: "The next day Mr. Luxon, our Master, having been ashore upon the Governors Island gave me half a score very fair Pippins which he brought from thence, there being not one Apple tree, nor Pear planted yet in no part of the Country, but upon that Island." Of indigenous productions Mr. Wood about the same time wrote: "The Cherrie trees yield great store of Cherries, which grow on clusters like grapes; they be much smaller than our English Cherrie; nothing neare so good if they be not very ripe: they so furre the mouth that the tongue will cleave to the rooffe and the throate wax horse with swallowing those red Bullies (as I may call them) being little better in taste. English ordering may bring them to be an English Cherrie, but as yet they are as wild as the Indians. The Plummes of the Countrey be better for Plummes than the Cherries be for Cherries: they be blacke and yellow about the bignesse of a Dawson, of a reasonable good taste. The white thorne affords hawes as bigge as an English Cherrie, which is esteemed above a Cherrie for his goodnesse and pleasantnesse to the taste." Highly interesting are the quaint descriptions of the flora of the New England towns whose early names have been preserved to date. Later in the book the Bussey Institution, Arnold Arboretum and the Boston metropolitan system of parks in New England are referred to. This work is probably the only record of horticulture in New England in a single volume. 16 mo. pp. v-180. Price \$1.40. New York: G. P. PUTNAM'S SONS. Rochester: SCRANTON, WETMORE & Co.

From Various Points.

At its recent session at Sigourney, the Southeastern Iowa Horticultural Society elected officers for the ensuing year as follows: C. L. Watrous, Des Moines, pres.; F. O. Harrington, York Center, vice-pres.; Wesley Green, Davenport, treas.; C. W. Burton, Cedar Rapids, sec'y.

At the meeting of the Horticultural Society of Southern Illinois, at Anna, the following officers were elected: R. T. Fry, Olney, president; J. W. Stanton, Rich View; L. N. Beal, Mount Vernon, and D. W. Prindle, Villa Ridge, vice-presidents; E. G. Mendenhall, Kinmundy, secretary and treasurer. Cairo was selected for the next place of meeting.

The forests of Germany extend over a fourth of the area of the whole country, and are all under skillful management. Baron Herman states that there is scarcely one tree in the whole of the fatherland which is not known personally to a forest officer, and which has not been sown or planted with more or less great care and labor. The whole area of wooded land is almost equally divided between state, community and private persons.

The Colusa, Cal., *Sun* says: "Messrs. Alexander & Hammon, owners of the Rio Bonito nursery at Biggs, Butte county, have four hundred acres in orchard and one thousand acres in nursery. There are peaches, apricots, olives, figs, pears, prunes, nectarines and early plums, all wonderfully thrifty, thirty thousand trees all in full bearing, from which an immense crop was yielded during the season just past."

The *Gardeners' Chronicle*, London, says: "The lands committee of the governors of Gordon's College, Aberdeen, a college possessed of many acres of land, have accepted the offer of Messrs. William Smith & Sons, nurserymen, Aberdeen, for planting the lands of Pitdoulzie, Auchterless, with trees, their estimate being at the rate of £1 16s. per imperial acre, and 8s. per acre for renewal for two years. Mr. Thomas Milne, Glenburnie, was the successful offerer for furnishing the plantations at Logierieve and East Craig, his estimate being at the rate of £2 per imperial acre. He also stipulates to renew at least 1,000 trees within two years if required."

The cut flower trade for Christmas, 1895, was the largest ever known in New York. Wholesale prices were generally lower than they have been on previous holidays, and stock was sold out. The following figures are given by *American Gardening*: Roses, 225,000; carnations, 260,000; violets, 280,000; Harrisii lilies, 40,000; Roman hyacinths, 150,000; lily of the valley, 60,000; cypripediums, 100,000; cattleya blooms and other orchids, about 10,000; maidenhair fern, simlax, narcissus, tulips, stevia, heliotrope, mignonette, were all sold in immense quantities, but it was impossible to form any opinion as to the number. Violets, roses, cattleyas, and carnations were the most popular flowers, in the order named.

SPINELESS GOOSEBERRIES.

The Spineless gooseberries raised by M. Edouard Lefort, secretary of the Meaux Horticultural Society, are of much interest, as representing a quite new and valuable type of these useful fruits, says the *Gardeners' Magazine*. The first of the varieties of the gooseberry without spines made its appearance as a chance seedling in a plantation of gooseberries raised from seed in the nurseries of the late M. Billard, of Fontenay-aux-Roses, in 1860. The variety did not appear to attract any special attention until 1884, when M. Lefort, recognizing the value of a race of gooseberries destitute of spines, commenced in a systematic manner the work of improvement and, as the result of his well-directed efforts, he has obtained several meritorious varieties, which have passed into the hands of MM. Letellier et Fils, Caen, Calvados, France. Four varieties have been selected for distribution, and these are Souvenir de Billard, a vigorous growing variety, with spreading branches, productive, and bearing large red fruit; Edouard Lefort, remarkable for its productiveness and the high quality of its vinous red fruit; Madame Edouard Lefort, dwarf in growth, and bearing medium-sized red fruit, which remain in condition upon the tree for some time after attaining maturity, and Belle de Meaux, vigorous in growth and productive, the fruits bright red.

PROOF OF THE MILLENNIUM.

R. M. Kellogg has set them all to thinking. The *Gardener's Magazine* of London, says: "Now we have a Michigan fruit grower asserting that fruit trees have so much of intelligence as to be enabled to recognize friends from enemies in certain responsive ways. If this American pomologist had said fruit trees are always intelligently responsive to good treatment and culture, he would have but reiterated a recognized truth. In this country we, however, find trees to be all too willing to shelter enemies, at least in the shape of insect pests, and it is feared the American trees are no wiser. When, however, fruit trees so far recognize friends from enemies as to bring down their topmost branches to enable the former to pluck the finest fruits, and refuse to do so to the latter, then shall we realize that the millennium of fruit is at hand."

THE BANNER COUNTY.

There has been much rivalry among counties in various states over the claim of superior fertility and productiveness. The largest agricultural county in each state concerned makes claim to supremacy in this regard, a claim sustained in the case of many Western counties by much valuable oratory. Recently an authentic statement of the agricultural products of the several states made its appearance, and it shows that the banner county of the United States, so far as agricultural products are concerned, is Lancaster County, Pennsylvania.

The farms of that famed and beautiful county of South-eastern Pennsylvania, on the Susquehanna River border line, yielded, in the year recorded, produce to the amount of \$8,000,000. Next in the value of agricultural products is St. Lawrence County, New York, with a total of \$6,000,000, though the comparison is hardly a fair one, because the area of St. Lawrence is three times as large as the area of Lancaster. The value collectively of the farms of St. Lawrence County is \$32,000,000, while those of Lancaster are valued at \$70,000,000. Lancaster has much better railroad connections than St. Lawrence, and, moreover, is closer to a desirable market for agricultural products. Third on the list of fertile American counties is Chester, Pennsylvania, which has an enviable record for chickens and dairy produce. It adjoins Lancaster County to the east, being nearer Philadelphia. It is smaller by about 25 per cent. than Lancaster, and yielded last year \$5,800,000 in agricultural products.

Still further to the east in Pennsylvania, but beyond the Philadelphia line, is Bucks County, noted for its market gardening and producing in a year \$5,400,000 of agricultural products. Bucks County is 610 square miles in land area, but it very nearly equals in yield of its farms the most fertile and productive of the New England counties, Worcester, Mass., the products of which, according to the table at hand, were \$5,500,000 a year ago. Worcester County is literally in the middle of Massachusetts, for it extends clear through the state, in the most

central part, from the New Hampshire boundary line on the north and the Connecticut and Rhode Island boundary on the south. It is an important agricultural county—the most important in New England—but is larger, as has been seen, than any of the fertile Pennsylvania counties with which it ranks in value of products. The sixth of the very productive farming counties of the United States is Colusa County, California. In area it is larger than the three Pennsylvania counties together, and has a record of \$5,300,000 of agricultural produce.—*Rural Californian*.

BURBANK ON SHORT ROOTS.

H. M. Stringfellow, of Galveston, Texas, a well-known fruit grower of that section, advocates using very short roots in root grafting and wrote to that effect to Luther Burbank, of Santa Rosa, Cal. The following is Mr. Burbank's reply:

From my own past experience I believe you are right. I have used for years 1-inch root and 5-inch scion for root grafting, and strange to say in an experiment ten years ago to test the matter, I used 1-inch roots with 5-inch scions, and from the same lot of roots and scions some 3-inch root and 3-inch scions. In the long rows thus under test I could see no difference (apple and pear) in the stand, but in case of pears the shorter roots produced the largest and best trees. Apples nearly alike. I usually cut back very heavily, but so far have not practiced such heroic treatment as you suggest; but as I said before, think you are right, and shall test it here. If it is true, what a grand result your studies have led up to, and in any case they can result only in good.

AS PROMISED

in our last number we now give the names of more varieties which have been added to the list of plates, which heretofore could only be procured hand painted, but are now lithographed by that progressive firm the STECHER LITHOGRAPHIC Co., of Rochester, N. Y. May Duke and Late Duke Cherries; Duane's Purple, Forest Rose, Glass, Quackenboss, Reine Claude and Spaulding Plums. More to follow next month. This firm have also added the following list of Plate Books to their list of supplies: one for North-Eastern and Central States, one for Northern and Western States, and one for Southern States.

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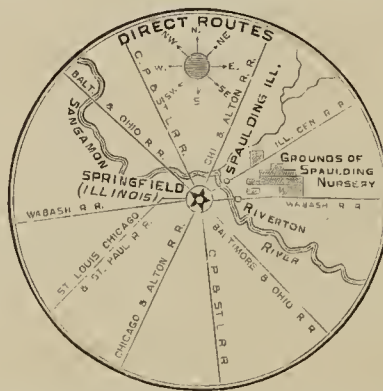
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VOL. IV.

ROCHESTER, N. Y., APRIL, 1896.

NO. 3.

OSAGE NURSERIES.

The Osage Nurseries, Osage, Iowa, were established in 1872 under the firm name of Gilman & Gardner. The firm now consists of Captain C. F. Gardner and son, Clark E. Gardner. They have a large office in the city, located over the post office. Their office is connected by telephone, not only with the central office, but also with the nursery and residence. Captain Gardner is conductor of one of the State Horticultural Experiment Stations located here, and is vice-president of the State Horticultural Society. In describing their grounds the Mitchell County *Press*, Osage, Iowa, recently said:

"We visited the nursery north-east of their residence. Here we found fruit trees by the hundreds of thousands, great blocks, a single one of which contained two hundred thousand apple trees. Some of the blocks were filled with evergreens from one to three feet in height. Here we saw three acres of the now famous "Gardner" strawberry, the finest-looking plants we ever saw growing. We noticed blocks of plums, cherries, *Prunus pumila* and many kinds of forest trees. We noticed a magnificent Barberry hedge fence forty rods long, next to the street on the east. It is the best looking, neatest and prettiest fence we have ever seen. This plant never blights or rusts and endures the cold climate of Northern Iowa with impunity. We were shown Barberry bushes one year old, hundreds of thousands of them.

"Here are thirty or more different kinds of evergreens from one to twenty-five years old. Driveways on curved lines extend in every direction. Suddenly we found ourselves in a large inclosure, entirely covered overhead, seven feet high, with lath frames or brush, and on every side were one and two-year-old evergreen trees by the millions. The collection of Rocky Mountain evergreens to be seen here is very fine. We noticed that everything is staked and labeled with copper labels which are indestructible.

"The wholesale trade is a very important item, extending into every state in the Union. We were shown hundreds of bushels of different kinds of seeds stratified, ready for next spring's planting. One thing cannot fail to impress the mind of every visitor, and that is the entire absence of weeds and grass, the whole nursery being under the highest state of cultivation. Gardner & Son, the proprietors of these magnificent nurseries, have by faithful attention to business, strict integrity and prompt dealings, built up an enviable reputation, and are constantly increasing their trade at a rapid rate. The *Press* is more than pleased at their prosperity and takes pleasure in recommending them to all who desire anything in their line, as

gentlemen of honor. A trip through their beautiful grounds at any time is well spent, and they are ever ready to show visitors around and explain the countless varieties of nursery trees, shrubs, plants, vines, etc."

MR. STRINGFELLOW'S SUGGESTIONS.

H. M. Stringfellow, Galveston, Tex., writes as follows to the *Rural New Yorker*:

In commenting on my method of root pruning, you say that it is likely "evergreens, magnolias, hickories, etc., could not stand it at all." I have tried it fully on peaches, plums, pears, apples, grapes, sycamores, pecans, English and Japan walnuts and persimmons, and find it entirely successful on all these deciduous trees, and equally so on the orange, the only evergreen tested. A tree thus tested is practically a seed, and will grow just as readily, with this advantage, that instead of one, it strikes several deep, tap roots. Your experience with the naked-rooted pear trees, I dare say, can be duplicated by all of your readers, who must, at some time, have been surprised at the superior growth of certain "butchered" trees which they were tempted to discard. Again, referring to your notes on Prof. Bailey's bulletin on unproductive trees, a long experience has convinced me that no fruit trees should be propagated from young trees that have never borne. If continued long, it results in barren trees long after they should begin to fruit. In my own LeConte pear orchard, trees propagated from bearing ones fruited full the fifth year, while those grown from cuttings taken from young trees had been grown several generations from young trees, never bore at all until nine, and bore full only the tenth year. I have had oranges propagated from bearing trees fruit full the third year, while those from young trees took seven and eight years. I never noticed in the end, however, any difference in productiveness. Continuous propagation from young nursery trees is a great injustice to the fruit grower.

THE WALNUT.

The walnut is best grown from the nut, but it can also be propagated by budding, grafting and layering. Fresh gathered nuts should be selected, and they can be sown in nurseries in drills two feet apart, or better where it is intended for them to remain, as this tree makes a very strong tap-root, which, if the tree be left too long before removal, may be injured in the transplanting. A deep and preferentially a calcareous soil should be chosen, with a dry bottom. The young tree is somewhat delicate and is apt to be injured by the spring frosts. In cold districts therefore it must be protected for a year or two. Plenty of room must be allowed, as it is a vigorous grower and makes fully twenty feet in height in ten years, at which date it usually begins to bear a crop. Once established little or no attention is required, and except to remove unsightly growths no pruning is necessary. It will attain quite 100 feet in height, and lives to a great age, its productiveness increasing with its years. It is very suitable for avenue planting or as a roadside tree.

REGARDING IDEAS.

I have always written to THE NATIONAL NURSERYMAN with a great deal of pleasure, for it does undoubtedly accord the privilege to a writer to choose his subject. This is more than divers of its contemporaries can honestly claim. Certain pundits are pretty sure to consign any expression of opinion which differs from their narrow notions, to the waste basket, and they may continue to be narrow for me. If these fine fellows paid for articles, perhaps a body could put up with them, but they are no more anxious to do that than give prominence to a difference of opinion. There are two or three journals devoted to the culture of the soil, always liberal to honest expressions, and I am pleased to recognize THE NATIONAL NURSERYMAN as one of them.

As to teaching the science of the nursery business in the public schools—is it practicable? Haven't the poor bairns far more crowded upon them already than they can assimilate? In my opinion they have, and it is an open question if their ill-digested pabulum isn't transforming them into the most conceited lot of parrots in creation. There is no question but the schools at any rate succeed in teaching them to believe that they are competent to undertake anything. You remark that botany has been introduced into many schools. What sort of botany? Try some of your graduates—just for fun, and I'll venture that 95 out of every hundred of them will fail to tell you how many classes there are among flowering plants! Such botany is of mighty little use to them. They collect a few wayside weeds and some effort is made toward their dissection; a twisted Latin or Greek name is forced upon their distracted attention, which is sure to be different to most other people's twisted Greek and Latin; and this you call a "curriculum" do you?

Mr. Editor! I am writing in all seriousness, the botanists of this world have a vast deal to answer for; among them they have made a useful and delightful science positively repellant, and if ninety-nine of every hundred had been illiterate mutes, we might have been spared their synonymy, their irreconcilable classification, their variable terminology, and often their overweening self-complacency. Before the children can grow up with a love for plants and trees and flowers you must give them something easier and more enjoyable than the interminable stuff you call a "curriculum." Suppose you turn your attention to the public pleasure grounds and see to it that such men as Falconer and Pettigrew are filled into places like Pittsburg and Brooklyn. There are thirty-two Kew gardeners in this country, and so far as I can learn Falconer is the second one to find his way into a public park, and the first to be given charge of one. And yet every man of them can select, agreeably present and foster more love for the nurserymen's products than all the botanists combined. They are practical enough to select those things that will endure the climate and beautify the landscape. They know just enough of

botany to use a single set of names, are content to follow accepted authorities, and follow them understandingly. The topsy-turvydom of newfangled Dutch systemization is unnecessary to them, it fails to charm them, and they can watch the wallowing of new school professors with complacency.

But it is not the simplification of terms alone that is desirable. Simplification of presentation may also be compassed, and the individuality of nursery products, their nature, their characteristics, may be blended with co-relative beauty. This the botanist of the herbarium, or the botanist of the garden has never done, and is quite incapable of doing. In every known case he has been wedded to different kinds of lineal artifice.

In a word, then, it is garden and park botany presented in attractively arranged living plants that is needed, and not the herbarium. It may be thought that I am hostile to botanists and herbariums—not so—but I am hostile to their perpetuating confusion, hostile to their monopolizing funds for mere crank paper work, and making the practical application of botany unattainable. The buildings, bridges, stone roads, big unworkable conservatories, tunnels, heterogeneous fripperies in planting may secure professors apprenticeships in gardens, with themselves as masters, but they teach the children no atom of intelligence that will make them appreciate a nurseryman's stock.

Again: If professorships are to be desired on the one hand, and nursery education only to be had by such slow drudgery as regular apprenticeship, people will teach themselves, and the product will be as it begins to be—

"A woman florist.—5 everblooming roses.—Red, white, pink, yellow and blush for 10 cts.—All will bloom this summer.—4 superb roses given away.—Rare sweet peas free!—50 cents worth of seed for 10c."

Let the nurserymen take a trifle more pride in such institutions as will exhibit their products in the simplest, most consistent, intelligible, and beautiful manner, and the public will be dull indeed if such practical appeal be in vain. Take a hand in politics sometimes and see to it that colonels, and coachmen, and professional tailors are not appointed to the natural plant schools of the country—while Kew gardeners, for instance, are "on tramp" (as Mr. Hale recommends) for want of a suitable position, or grubbing willows in a bog, as one of your Rochester readers may remember was the case a few years ago.

In the meantime there is improvement, and if my outspoken protest touch the nerve of a single individual I can easily reconcile myself to a few enemies, for they are too narrow even to spend a postage stamp.

In twenty-five years of writing I have hinted much and suggested more. I have watched professional (?) mediocrity copy, and appropriate, and blunder.

Meantime the poor children know just about as well as their grandsires whether the capacity of your nursery climate stands for 3,000 species or thirty.

Trenton, N. J.

JAMES MACPHERSON.

Among Growers and Dealers.

Pacific coast nurseries report large demand for winter apple trees.

J. H. Hale has been re-elected president of the Connecticut Pomological Society.

O. A. E. Baldwin, Bridgeman, Mich., has an immense stock of strawberries this spring.

E. F. Stephens, Crete, Neb., contributes an article on soil culture to the *Nebraska and Kansas Farmer*.

S. E. Briggs, Toronto, is president, and A. L. Don, New York, secretary of the American Seed Association.

The Oregon Wholesale Nursery Co. is in the hands of a receiver. The assets are said to be \$20,000; the liabilities \$6,000.

Silas Wilson, Atlantic, Iowa, is a delegate from the ninth district of Iowa to the Republican national convention at St. Louis.

Harry L. Sunderbruch, Cincinnati, is president and Albert M. Herr, Lancaster, Pa., is secretary of the American Carnation Society.

It is reported that Dr. Dargitz and J. B. Gill have grafted 200,000 apple scions for planting in the neighborhood of Roswell, N. M.

The Cash Nursery Co. has been incorporated at Des Moines, Iowa, by S. A., W. E. and C. E. Chaplin. The capital stock is \$20,000.

T. S. Hubbard, Fredonia, N. Y., was the first president of the Chautauqua Horticultural Society, which was established August 28, 1880.

Stephen Hoyt's Sons, New Canaan, Conn., have their usual large stock of apple trees, Green Mountain grape, currants and purple beech.

A. V. Broonie, Willis N. Hamilton and others have formed the Broonie & Hamilton Co. at Stevens Point, Wis., with a capital stock of \$700.

Jacob W. Manning has been in the nursery business forty-seven years and for forty years he has been the proprietor of the Reading Nursery at Reading, Mass.

Alexander & Hammon, owners of the Rio Bonito nursery at Biggs, Butte county, California, have four hundred acres in orchard and one thousand acres in nursery.

In reply to a correspondent, the *Rural New Yorker* says: "J. J. H. Gregory of Marblehead, Mass., gives the strongest public guarantee (of seeds) we have seen in this year's catalogues."

The Essex County Park Commission of New Jersey is preparing to include in an extensive system many fine boulevards. Frederick W. Kelsey of New York city, is a prominent member of the commission.

Storrs & Harrison Co., Painesville, Ohio., Ellwanger & Barry, Rochester, and W. & T. Smith Co., Geneva, N. Y. are enthusiastic in praise of the Crimson Rambler Rose. No rose is more prolific or more attractive.

W. L. Moores, Cyruston, Tenn., says that the Paragon and Arkansas Mammoth Black Twig are one and the same apple, and that the original Paragon tree yet standing within three miles of his place, is the progenitor.

"I think that it will be found this year that, in nearly all sections of the northern United States, the vast majority of peach buds are now dead, and there is little likelihood of any crop of commercial value," says J. H. Hale.

George Rudy of Colfax, Wash., has secured seed from what is claimed to have been the largest Pawpaw tree in the United States, grown at Paint, Ohio, and has taken pains to distribute the seed in different parts of the State of Washington.

"The members of the Colorado Nursery Co. have bought the Sullivan farm, which consists of forty acres of fine land just north of Loveland, Larimer county, and will plant 150,000 fruit grafts, as they expect to go into the wholesale business.

A sample of the Bismarck apple shown by John Charlton of Rochester, recently, bore out in many respects the many favorable things said of this variety in unreserved descriptions. It is large, handsome and of unusually good flavor. As a dessert apple it ranks with the best.

"The mode in which a tree is propagated has nothing to do with its hardiness, whether by budding, root-grafting, top-grafting, layers or cuttings, for the truth of which I would respectfully refer you to any

nurseryman or horticulturist in the United States," says Irvin Ingels, Lafayette, Ill.

The Bismarck apple is a revelation to all who see it. A sample of the fruit, and which came from Germany in a shipment of stock, indicates that this variety has many good qualities. The tree is a hardy dwarf and bears fruit the second year. A full description is given in the catalogue of Arthur J. Collins, Pleasant Valley Nurseries, Moorestown, N. J.

At the recent meeting of the Connecticut Pomological Society Edwin Hoyt, of New Canaan, said that New England, and especially Connecticut, is well adapted for giving the best quality apples, and there is more money in this fruit than all others. There are thousands of acres of land, now practically abandoned, that could be made to grow apples at a good profit. Incidentally, it was stated that whole-root trees are no better than those grown from piece roots.

Professor I. L. Budd, of Iowa, says: "The time has come when we should make a combined movement in the direction of a more extended and general propagation of our best native evergreens. We have not been noted as gatherers of the seeds of our native trees. European tree seeds can be bought in any quantity at moderate prices, but American tree seeds are scarce and high priced. Perhaps this is the main reason why our best American evergreens have been scarce in our nurseries."

C. D. Otis, proprietor of the Lake Charles Nursery, has changed his place of business from Shell Beach, La., to Lake Charles, La. He says: "I shall plant largely of pears, Japan plums and Citrus trifoliata stocks on which to bud Satsuma oranges. Considerable of the seed evergreens and other ornamental trees and plants will enter quite largely into my trade in the future. The fruit prospects in Southwestern La. were never better, excepting oranges which were so badly frozen last winter that we will have no crop for one or two years to come."

A. J. Perkins, secretary Flower City Nursery Co., Rochester, N. Y., says: "The largest sales of nursery stock this spring have been in peaches, showing that this fruit will be extensively planted this year. We know of one Western N. Y. grower whose crop last fall consisted entirely of Crawford peaches, which were sold entire on the trees at a good figure to a cannery here. The Elberta peach is meeting with much favor and its sales have been heavy. Japanese plums are much in demand on account of attractive appearance and excellent quality of fruit."

A. C. Griesa & Bro., of Lawrence, Kan., one of the leading firms of the state, are this spring increasing their plantings largely. They are also making extensive improvements at the home grounds, including the erection of new and commodious offices, and will largely increase their office force. They intend making a specialty of the retail trade and have secured C. W. Carman to take charge of that branch of the business. Mr. Carman was at one time with Chase Brothers Company, of Rochester, but for the last four years has been managing the agency department of I. E. Ilgenfritz & Sons, Monroe, Mich.

The city of Galva, Ill., is fixing up her park and new cemetery grounds this spring. The park will be planted with over forty varieties of shade and ornamental trees, among which are cultivated weeping birch, American elm, Norway maple and Black Hills spruce; twenty varieties of the most popular flowering shrubs. Irvin Ingels of La Fayette, Ills., has the contract to furnish and plant the trees. He will also have full charge of the culture and care of them for three years. Galva will have one of the finest parks of any city of its size in Illinois. The park committee showed good judgment in letting the contract for the entire work to a practical landscape gardener.

C. L. Watrous, Des Moines, Ia., says: "Horticulturists are making more extensive plantings of plums for market purposes than of any other one fruit, and the varieties are almost entirely of our later introductions, from races of plums native to the upper Mississippi valley. Of these the three sorts that are most sought after and command the highest prices are, first, Milton, the earliest market plum; second, the Charles Downing, one of the most fruitful, of best quality and the most beautiful market plum; third, the Hammer, a beautiful tree, fruit of fine quality, and hardier in the extreme North than either of the others. I cannot learn of any new departure that farmers and market gardeners are making for this year."

Regarding the proposition to secure better transportation facilities between Rochester and Philadelphia, William C. Barry, of the firm of Ellwanger & Barry, said: "I don't understand the reason why the manufacturers of Rochester do not have a larger trade with Philadelphia. As far as our business is concerned, we have always had our share, but I do think if the conveniences for getting to Philadelphia were better, trade would show a great improvement. We are anxious to do business with Philadelphia, although we do considerable now with the nurserymen of the Quaker City. There is a scheme on foot to give us direct communication with the City of Brotherly Love, and if this is done it would be a good thing for both cities."

T. H. Hoskins says of the Loganberry: "There seems to be a strong effort on the part of some nurserymen, to introduce this western shrub, or small tree, into eastern gardens. This is right enough, if in description the truth is adhered to. I find in a usually very reliable Eastern publication, a statement that it is 'a shrub of a compact, symmetrical habit.' I have had it in my grounds some 20 years, not simply a single tree, but upwards of a dozen, and find it very straggling in growth, with thin foliage, and growing 20 feet high in rather poor, dry soil. The foliage is described as silvery white. I find it a grayish green. It is stated to be productive. Barberries near by it are, at least, four times as productive. No note is taken of the fact that this shrub is dioecious, bearing no fruit on male plants."

Obituary.

Benjamin M. Watson, Plymouth, Mass., well-known as a raiser of seeds and grower of nursery stock, died February 20th. He was the father of Professor B. M. Watson of the Bussey Institution.

Adolf Ladenburg, of the Oasis Nursery Co., Westbury Station, L. I., was lost at sea February 20th, during a voyage from Nassau, New Providence, Bahama Islands, to New York city on the steamship Nienaragua. Mr. Ladenburg was the son of Emil Ladenburg, a wealthy retired banker, of Frankfort-on-the-Main, Germany. He began life as an officer in the German Army. He came to America in 1876, and four years later became a partner in the great banking firm of Ladenburg, Thalman & Co., of Wall street. The deceased was an enthusiastic lover of trees and flowers, and in December, 1891, formed the Oasis Nursery Co., of which he was chosen president. Through his efforts Westbury, L. I., and its surroundings were greatly improved, much of his extensive property in that locality, some two hundred acres, being laid out in the form of a park.

William Brown Smith, the senior member of Smiths & Powell Co., Syracuse, N. Y., died March 10th aged 81 years. Mr. Smith was born at Brighton, Monroe county, N. Y., March 2, 1815. He learned the cabinet trade and engaged in this and mercantile business in Walworth, N. Y., and then removed to Syracuse where he bought a half interest in a nursery with Alanson Thorp, under the firm name of Thorp & Smith, the nursery comprising four or five acres, situated on West Genesee st., near the present Smith family residence, for which he paid \$2,000. This nursery was increased from time to time, until it occupied several hundred acres. The firm name was changed at various times by the retirement or addition of other partners, until Mr. Smith became the sole proprietor of the business. In 1868 Edward A. Powell married the only daughter of Mr. Smith, Lucy C., and became a partner in the business, which was soon after extended by the addition of the live stock interests, from which has been developed the celebrated "Lake-side Stock Farm."

In 1879, the firm was again changed by the admission to partnership of his sons, Wing R. and W. Judson Smith, under the firm name of Smiths & Powell. The firm was afterwards changed to that of Smiths & Powell Co., which is still retained.

Mr. Smith was largely identified with the development of Syracuse, having been prominently connected with its leading public and business enterprises, and at the time of his death held several positions of trust and honor, among which were president of Oakwood cemetery, vice-president of the Syracuse Savings bank, director of the Salt Springs National bank, director of the old Syracuse Water Co., counselor of the Old Ladies' Home, president of Smiths & Powell Co., treasurer of the Holstein-Friesian association, trustee of St. Joseph's hospital, and senior member of the firm of P. R. Quinlan & Co.

From Various Points.

And now it is the California orange crop that has suffered from frost. But the danger has not been nearly as great as was that in Florida. Trustworthy reports indicate that the Riverside crop of 3,400 car loads, out of a total of 10,000 car loads for the entire state, is ruined. The estimates of the loss have been placed at from 50 to 90 per cent.

A Denver nursery firm which sold trees that did not grow sued the purchaser for the amount of the bill and, strange to say, secured judgment against him says the *Field and Farm*. The court held that in trying to make trees grow the planter must assume more responsibility than the dealer who sold them and in one way of looking at it, this is correct. We cannot expect to grow trees if we neglect them.

Apropos of the reference to botany in schools, made by James MacPherson in another column, attention is called to the following observation by the *Gardener's Chronicle* of London: "It is scarcely necessary to say now that there is no study in the whole curriculum equal to that of botany, and the Japanese authorities have issued an extended 'minute' full of wise provisions or suggestions for the guidance of heads of schools, all bearing directly on planting, growing, and bringing to maturity, of flowering shrubs and plants, and of forest trees—oaks, pines, etc."

During the Connecticut Pomological Society's meeting the discussion turned on the advantages of roots and root-pruning, the general opinion being that the small fibrous roots are of small value to a newly transplanted tree, and along with all broken and bruised roots can be profitably cut off. The tree needs good strong side roots to hold it firmly in the soil. One nurseryman predicted that in the near future trees would be sent out from the nursery with the roots already pruned. Several cases were cited where trees, almost destitute of roots, properly planted, lived and thrived.

Free plant distribution, a new departure in horticultural work, was introduced by the Wisconsin Horticultural Society five years since. The society agrees to furnish any pupil in the public schools of that state six strawberry or three raspberry plants, or two spruce trees, upon the receipt of five cents and the promise to report on the condition of the plants the following autumn. Over 4,000 children took advantage of the offer last year. This strikes the *R. N. Y.* as an excellent thing. Who is the public-spirited citizen right in your school district, who will start just such a local distribution.—*Rural New Yorker*.

The secretary of agriculture, in accordance with the mandates of congress, has prepared a circular letter to be sent to all known reputable growers of and dealers in seed throughout the United States asking them to furnish at reasonable prices to the United States department of agriculture 10,000,000 packets of garden, field and flower seeds, beginning with asparagus and ending with wheat. This number of packets will give to each member and delegate in the house of representatives and to each United States senator 15,000 packets for distribution among his constituents, after deducting one-third of the whole amount, in accordance with law, for distribution by the secretary of agriculture. All of these must be delivered on or before thirty days from the 17th day of March, 1896.

One of the largest planting enterprises ever undertaken in the West is that of the El Capitan Orchard Company at Roswell, New Mexico, a concern headed by Joseph Sampson, Sioux City, Iowa. Seven breaking plows have been ripping up the land for some time, and a large force of men and teams are busy on buildings and fences, says the *Denver Field and Farm*. Ten square miles in a solid body are now enclosed by a substantial barbed wire fence, with some interior cross-fencing for pasture that will be put into alfalfa. Fifty miles of main and lateral ditches have been constructed. Four first-class wells, tested to yield 100 to 150 gallons of water a minute, have been bored, and shortly several more are to be sunk. Quite an area of early plowed mellow ground will be put into small fruit, vines, grain, vegetables, etc. Between 60,000 and 75,000 young apple trees of best varieties will also be set out as soon as sufficient plowing is finished. It is the intention to plant a large acreage in pears and plums the coming winter after the ground has been prepared during the summer. Parker Earle has lately gone to this company as superintendent of planting.

ALEXANDER PULLEN.

The subject of this sketch was born near Hightstown, N. J., November 28, 1841. He was educated in the local schools in the English branches and subsequently attended an institute to acquire a knowledge of the German language. Early in life he became practically familiar with all the details of the nursery business, as Hightstown at that time was a nursery centre. During 1863 and 1864 he was salesman in a prominent New York city store. Having an offer of a position in the quartermaster's office at Washington, D. C., he served in that capacity during 1865.

In 1866 Mr. Pullen contracted for the budding of large nurseries near Chestertown, Kent County, Md. The following year he contracted with Lukens Pierce of Coatesville, Pa., for the budding of his nurseries, then located at Dover, Lincoln and Bridgeville, Delaware. Having performed this to the mutual satisfaction of all parties concerned, he then assisted Lukens Pierce on his nurseries and fruit farm located at Lincoln, Del., until January, 1870, when, with the Hon. John W. Causy of Milford, Del., (now ex-congressman) the now well-known Milford Nurseries were established.

This co-partnership extended until 1876, when the business was continued under the present management.

Mr. Pullen has been fairly successful, having a commodious home within the city limits, a fruit farm of one hundred acres located eight miles south of Milford, in Sussex County; also a fruit farm and the nurseries, one mile north of Milford, in Kent County. He takes a personal pride in the business, and in the matter of new fruits all are tested on ample fruiting grounds.

During the season of 1895, 800,000 peach seedlings in one block were successfully budded with the most desirable new and old standard sorts, preparatory for the autumn of 1896, as well as large blocks of Japan plums, etc.

Mr. Pullen is a member of several orders and organizations, including the Masonic fraternity, and has much pride in the welfare of the Knights Templars.

He married on February 17, 1869, Miss Clara Russell, an estimable young lady, the only daughter of a widow, at Toms River, Ocean County, N. J. By this union there were six children, of which two sons, now young men, and one daughter survive.

A NURSERYMAN'S PROMOTION.

William Falconer has been appointed superintendent of the Pittsburgh park system. The selection is an acknowledgment of Mr. Falconer's comprehensive knowledge of horticulture, floriculture and forestry, acquired through study and practical experience. He was born in 1850 at Invernesshire, Scotland, and commenced his horticultural career in the establishment of John Grigor & Co., of Forres, the owners of the largest forest tree and general nursery in the north of Great Britain. After serving an apprenticeship there, he was connected with some of the leading gardens in Scotland and England, and assisted in the laying out of Alexandra Park, Manchester, Eng. Subsequently he entered the Royal Gardens at Kew, and in 1872 joined the staff of the London

Garden, where he remained for two years, and did much valuable work for the paper in describing the methods of the London market gardeners.

Mr. Falconer came to America in 1874 and was employed by the late F. L. Ames at North Easton, Mass. Then he went to Texas and engaged in the nursery business. In 1876, at the urgent request of Professor Sargent, he accepted the post of superintendent of the botanical garden at Harvard University. In making this appointment Professor Sargent was prompted by the late Dr. Asa Gray, who had met Mr. Falconer in England, and was cognizant of his capability for the work he would have to undertake at Harvard. Mr. Falconer remained there until 1883, when he went to Dosoris, Glen Cove, Long Island, to superintend the estate of Charles

A. Dana, proprietor of the *New York Sun*. Under his charge Dosoris has become one of the Meccas for American horticulturists. During his residence in America Mr. Falconer has contributed largely to the leading magazines and technical press.

Never before did the first of March find the peach buds of the Delaware and Maryland Peninsula in better condition than at present, says the *Delaware News*.

The British Columbia *Commercial Journal* alleges that that province has the most extensive fruit testing experiment station in the world. It is located at Agassiz. The *Journal* believes British Columbia has untold possibilities in the way of fruit culture, and urges a great extension of the business.



ALEXANDER PULLEN.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

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ROCHESTER, N. Y., APRIL, 1896.

SIGNS OF PROGRESS.

In these days of financial depression and low prices it is a pleasure to note the signs, which are everywhere about us, of success in special and general lines of horticultural work. We say everywhere about us; and is this not true? For while in many places marked success may be upon a comparatively small scale, it is still a means of encouragement.

With the exception of the introduction of novelties about many of which there clings from the beginning a suspicion of doubtful merit, there have lately been few developments to attract general attention to the progress of horticulture. But the recent publication of the radical methods practiced by H. M. Stringfellow of Galveston, Tex., in the culture of fruit trees is one of the indications that in horticulture there are latent surprises which cause it to rank with other sciences in which the last days of the nineteenth century are producing wonderful results. Progressive nurserymen are familiar with the principles laid down by Mr. Stringfellow for the treatment of roots of fruit trees in transplanting, to which reference has been made in these columns. Recently this well-known horticulturist has been photographed with samples of trees "before and after treating" in his hands, and this photograph preaches a sermon more plainly than can words. In his right hand he holds a stump of a young tree scarcely more than a foot in length, the roots trimmed to within an inch or two of the top. In his left hand he holds by its center a pear tree whose branches extend far above his head.

In a communication to THE NATIONAL NURSERYMAN Mr. Stringfellow says: "The tree in my left hand was grown in one season from one exactly like that in my right. It was planted in nursery row with trees on both sides, on ground broken only four inches deep and drawn up into a slight ridge. The soil was black, waxy, with hardpan, pipe clay subsoil. The main cane was eleven feet and had to be broken down for photographing. Many roots were broken in digging and the lower ends were as large as wheat straws, showing a probable penetration as deep as the top was high."

Mr. Stringfellow says that nurserymen and horticulturists are sceptical regarding his proposition, but he is confident that time will prove its truth. He says:

I could give the experience and endorsement of quite a number of orchardists who have practiced this method with uniform success, but space will allow me to mention but one. He stands on the topmost round of the horticultural ladder, and as far as I know is the only man whose mind is so unbiased by the prejudice of preconceived opinions, and his perceptions so intuitively correct, that as soon as the method and reasons for it were presented, he saw its truth. Without waiting for the slow demonstration of experience, he at once put it in practice on his great 900 acre peach orchard of 100,000 trees, which he was about to plant in Georgia. I wrote him recently as to how it turned out. Here is the reply:

"Dear Sir: I am glad to state that the close root pruning, which was practiced when planting our entire orchard of one hundred thousand trees at Fort Valley, Georgia, proved to be the most successful operation we ever practiced, less than one-half of one per cent. of the trees failing to grow, and all making the most vigorous and even growth I have ever seen in any orchard in America. The orchard is now three years old, and gave us an enormous crop of fruit this past season. I am thoroughly in favor of this system of root pruning.

Yours very truly, J. H. HALE."

And now in conclusion, in view of the fact that my individual efforts for eight years have amounted to practically nothing, the question is, how to bring about in the general handling of trees this radical but needed reform. I see but two ways. The first through the medium of the nurseryman and his catalogue, and the second through the bulletins of the experiment stations.

Quite a number of nurserymen, some of them the most extensive in the Union, have written me that they are now practicing my method exclusively, and with perfect success, in all their nursery transplanting operations, but they dare not advise the people to adopt it for fear of being accused of trying to induce them to kill their trees, so as to sell them more next season.

Mr. J. H. Hale is the only exception I know in the whole country. He comes out boldly for close root pruning. Now let all the rest make mention of the subject in their future catalogues. Next let the state experiment stations make exhaustive experiments on all kinds of trees vines and small fruits.

And this introduces another shining example of success in horticulture. Our readers will pardon our allusion again to the result of the operations of G. H. and J. H. Hale in the South. It is an experience from which all may profit. In a most attractive treatise on fruit growing entitled "From a Push Cart to a Trolley Car," J. H. Hale, ex-president of the American Association of Nurserymen, says:

Coming from the busy whirl of our great Georgia orchard in mid-summer last—where day after day we had been sending out fruit, not by car-loads alone, but by whole train-loads in a single day—back to the home farm, here for months to continue picking, grading and loading thousands of bushels of luscious fruit daily, with electricity, that witch of modern times, stealing down over the wire at night to whisk the loaded trolley cars off to market and whisk back empty ones,

before we were up in the morning, my mind went back to the time when, with the widowed mother and loving sisters, we boys began our first efforts in fruit culture. We had only a small hand push-cart as a means of transportation; one hoe, a shovel and a spade were our only tools, and our capital was locked up in the soil of the old farm and the latent energies of two boys, anxious to carry their share of life's burdens. I remember how the first strawberry bed was planted, midst the sleet and rain of one cold April day, and the crop marketed the next season at the village store for some eight or ten dollars; and then my mind flew back again to the past season, when the entire product of our fruit farms sold for more than \$100,000.

For years, while we were steadily increasing the small-fruit business, every dollar that was made—except those required for a very meagre living, subscriptions to leading agricultural papers, for traveling expenses to horticultural and agricultural meetings, or for visits to farms of the most successful fruit-growers we could hear of, especially where new varieties were being tested—was put back on the farm, either in new plants, fertilizers or labor. Farm products and cash income have increased; the great Georgia orchard of nearly 1,000 acres has been established, providing a winter home to which we can go and always find plenty of congenial work when the Connecticut farm is frost bound; and a nursery business has been founded that annually produces millions of trees. A farm adjoining our own here was purchased last year and extensively planted to Japan plums, and now another adjoining farm has been purchased. As I write we have just completed a perfect system of water works for irrigation as well as domestic use.

By special arrangement with the Hartford street railway, which has a trolley line past our farm, last summer a switch was put in here and three special cars fitted up exclusively for our own use. Day after day these cars were sent off to market loaded with fruits, thus making ours the first fruit farm in America to adopt electricity and steel rails in the transportations of crops direct from the farm to consumers. Express and freight matter of all kinds will be received and shipped from the farm over the same line, and we believe our business is on a better basis to-day than any other like enterprise in America.

From the earliest beginnings, all the way along up, we have heard the talk that the "fruit business would be overdone." Production has been enormously stimulated and increased, but except in rare instances, the demand for fine fruits has always been in excess of supply. Our people, the most wealthy and appreciative of any on the face of the globe, are yearly growing more cultivated and refined. The love and desire for fine fruits and flowers goes with this refinement, and must mean an ever-increasing demand for our choicest products; wherefore we can but believe that in the years that are to come broader opportunities await those who are to follow than ever greeted us in our gradual evolution "From a Push-Cart to a Trolley Car."

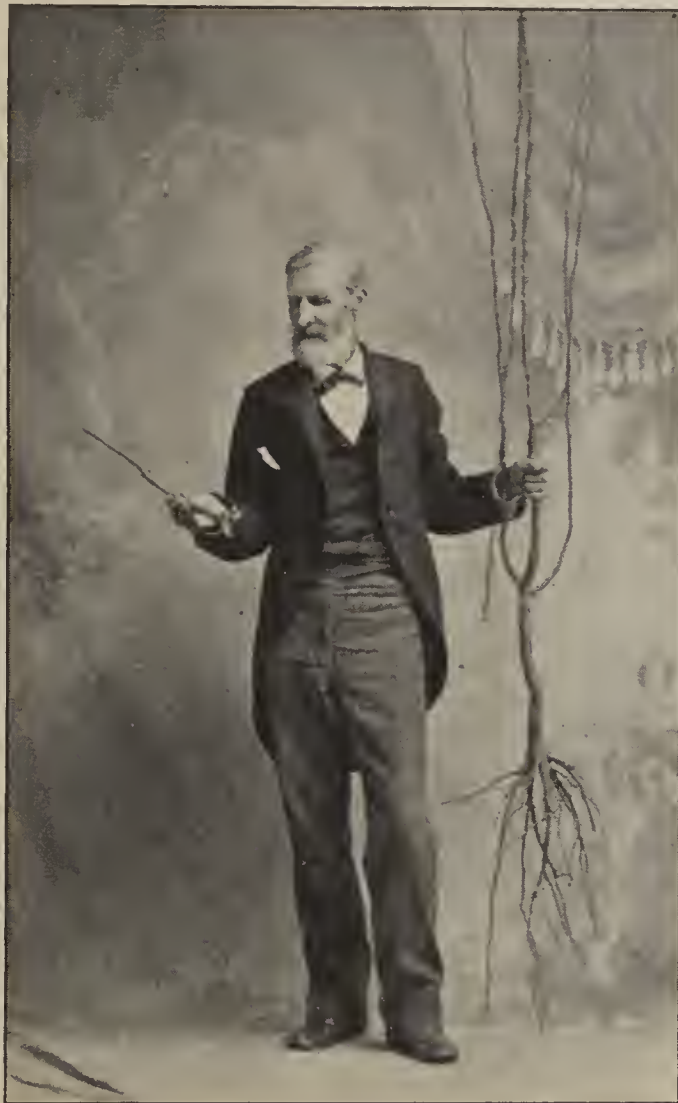
The illustration on page 36 represents a section of the large Georgia orchard and nursery of G. H. & J. H. Hale, South Glastonbury, Conn., looking north from top of packing shed. The rows are over a mile in length. The nursery of 200 acres is far at the right, with Japan plums, peaches and pears in straight rows, nearly half a mile in length. Aside from the 100,000 peach trees in the view, the Hales annually grow 3,000,000 Marianna plum stocks and over 1,500,000 peach, plum, and apple trees in nursery, for wholesale trade only.

WASTED ORCHARDS.

The *Gardeners' Magazine*, London, has been publishing a series of articles on the wasted orchards of England. It says:

With the report on the county of Worcester, which appears in the current issue, our special commissioner will, for the present season, bring to a close his articles on English orchards, which have created an immense amount of interest far beyond the boundaries of the counties on which he has reported. We have observed with much satisfaction the attention they have received—more particularly in the principal fruit-growing centres, for they reveal a state of things anything but creditable to the farming industry of this country. It is no new tale that our special commissioner has had to tell us; but he has thrown much fresh light upon the present aspect of fruit growing in the more

important English counties, and has conclusively proved that the industry, as a source of income, has in many districts been wholly neglected or so conducted as to render profitable results impossible. He has given us evidence of apathy and ignorance in the counties which can properly claim to be the most advanced in a knowledge of profitable fruit production; he has shown that in the others there are large areas of land under fruit trees which, by reason of their unsatisfactory condition, cannot give even a moderate return for the space they occupy, and he has been able to indicate that the whole of the counties on which he has reported have possibilities in the production of fruit, of which but few have an adequate idea. It is not necessary we should recapitulate the principal points raised by our special commissioner in the series of reports, for, unless we are much mistaken, it will be readily conceded that they afford indisputable evidence that, while we import enormous quantities of apples annually, there are tens of thousands of acres of fruit trees that—in consequence of the ignorance of the most elementary details of their management—have been allowed to pass into a state that renders them practically worthless for the production of fruit for commercial purposes. As the result of the condition of the trees and unsuitability of many of the varieties largely grown, the annual loss to the owners of the orchards must be very heavy, possibly not less than £100,000 in each of the



H. M. STRINGFELLOW.

six principal fruit-growing counties, which, as shown in the "Garden Oracle," are Devonshire, Gloucester, Hereford, Kent, Somerset and Worcester, have an aggregate acreage of 137,085.

J. A. Balmer, Pullman, Wash., cautions planters on the uplands not to purchase plum or prune trees which are budded on peach stock, claiming that the trees will be short lived. West of the Cascade mountains and in sections east where there are no severe frosts plum and prunes budded on peach roots are producing excellent results, he says.

William Wickham, Binstead, England, has for eighteen years noted the measurement of trees girthed at four feet from the ground. A sycamore, which measured, as described, 7 feet $\frac{1}{2}$ inch in 1878, this year measures 7 feet 11 $\frac{1}{2}$ inches; an oak which measured 10 feet in 1878 now measures 11 feet 1 $\frac{1}{2}$ inches. A Spanish chestnut, pollarded, made a growth of 3 feet 3 inches in eighteen years. A large oak gained but 9 $\frac{1}{4}$ inches in twelve years, and an old larch but 4 $\frac{1}{2}$ inches in girth in sixteen years. A small oak gained 1 foot 1 inch in ten years.

Recent Publications.

W. Crawford is editor and O. A. Knox publisher of *Horticulture*, a monthly journal for general distribution.

"The 1895 Chrysanthemums" and "Sweet Peas" are February bulletins issued by the horticultural division of the Cornell University Experiment Station.

A handy volume for horticulturists, nurserymen, seedsmen and florists is "An Encyclopædia of Gardening" by T. W. Sanders, F. R. H. S., editor of *Amateur Gardening*, London, England. It is an epitome of the practical details of the culture of plants generally grown in English gardens. The plan of the work is simple and convenient. The botanical and common names are given, the duration and characteristic as to hardiness, the natural habitat, date of introduction, number of species cultivated, the height, color and time of flowering, color of foliage, the soil and time of planting and the method of propagation. All this is in compact form, yet in plain type and under systematic arrangement. The names are alphabetically placed. It is a welcome addition to the list of dictionaries of cultivated plants and appeals to the nurseryman and the florist especially because of its moderate cost. Cap. 8vo. Pp. 435.

Second edition. 3s. 6d. London, 148 & 149 Aldersgate st., E. C. W. H. & L. COLLINGRIDGE.

An interesting publication, cleverly linking the Chinese with the English language, is "Mesny's Chinese Miscellany," a text-book of 500 pages, 9 x 12 inches, consisting of notes on China and the Chinese, with alphabetical index and separate number for each note for easy reference. It is published in Shanghai, by William Mesny, F. R. G. S., F. R. Hist. S., Brevet Lieutenant-General, Chinese Army. The interest from

a nurseryman's standpoint is the description of the flora of China as the result of the author's long and varied experience in the Orient. The major portion of the work treats of botanical subjects, and when complete it will present an attractive compilation of statistics not easily obtained elsewhere. Added interest is lent by the author's series of articles upon progress in China and his notes on the life and adventures of a British pioneer in China. Mr. Mesny promises to deliver the work to subscribers, bound in scarlet cover this month. Price 25 s. It has been issued in parts, weekly. Shanghai, Club Chambers, No. 2 The Bund: WILLIAM MESNY, *China Gazette* Office.

A general knowledge of subjects connected with the nursery trade must include acquaintance with the experience of propagators in other lands. For a long time the nurserymen of America have been dependent upon the French for seedlings and it cannot fail to be of interest to know something of the methods of French horticulturists. In the horticultural encyclopedic library, published in Paris under the direction Dr. F. Heim, member of the National Society of Horticulture and edited by Octave Doin, the well-known publisher, are four volumes entitled "The Culture of the Pear Tree," "Hardy Palms," "Bromeliaceæ" and "Field Ferns, Equisetum, Lycopodium and Selaginella." The first of these is by O. Opiox, gardener in chief of the Luxembourg

gardens, professor of arboriculture, member of the National Horticultural Society of France and chevalier du mérite agricole. The book is a compilation of lectures delivered by the author at Luxembourg and was published at the earnest request of those who had attended those lectures. The author divides his book into ten parts, treating the subject as follows: The origin of the pear tree and botanical knowledge concerning it; the pear tree generally and soils favorable for its culture; suitable fertilizers; formation of the fruit-garden; the planting; methods of pruning; training; the espalier and the culture in orchard and on highways; grafting; practical ideas of the most common diseases of the pear tree; harvesting and storing the fruit; choice of the best varieties. In the first chapter, the author describing the origin of the pear, refers to the period in which the Chartreux fathers established on the spot where they exist to-day the gardens of the Luxembourg, the nurseries of which are universally known. From 1675 to 1789 this famous society distributed, as much in France as abroad, more than a million pears. The retail catalogue of the nurseries of the Chartreux comprised 102 varieties. The methods of propagating the pear are presented in detail. Particular attention is paid to the espalier system so popular throughout Europe. The entire work is most carefully prepared. It should be in the library of every progressive nurseryman. The same strict attention to detail marks the propagation of the other

volumes noted. That relating to palms has a preface by Ch. Riviere, Alger-Mustapha, directeur du Jardin J'Essai J'Alger, dedicated to the author, Rapheal De Noter, in which M. Riviere refers to the important place occupied by palms in the gardens of the Mediterranean shores. M. De Noter treats the subject with a master hand. His style is particularly attractive and the information imparted is of the highest order. The subject is treated comprehensively in this little volume of 146 pages. Illustrations add to the interest and value of



HALE GEORGIA ORCHARD AND NURSERY.

the book. Ferns are described by H. Correvon of Geneva. And who is better fitted to discuss this subject than an alpine gardener? In his introduction he fascinates the reader and at the outset convinces him that "Partout la végétation offrait des formes gigantesques et exagérées et une luxuriance dont nous n'avons aucune idée." The plan of the work is admirable, leading the reader by progressive stages to a full understanding of the peculiarities of these interesting plants. There are 68 illustrations in the text. "Les Broméliacées" is by L. Duval, honorary member of the Central Society of Horticulture of France, vice-president of the Horticultural Society of Seine-et-Oise, Chevalier de la Légion de Honneur, officier du mérite agricole. M. Duval enters into the importance of his subject with a confidence which characterizes all the authors named and which makes these volumes especially interesting. They are treatises by specialists and as such are of great value to the horticulturist and the nurseryman. The price of each is 2 fr. with the exception of "La Culture du Poirier" which is 2 fr. 50. Paris, 8 Place de l'Odéon: OCTAVE DOIN.

Estimates of an addition of at least 3,000 acres to the olive orchards of Southern California by new orchards planted this spring, are made by papers in that part of the state.

Foreign Notes.

The collection of orchids at Kew, England is equalled in Europe only by the collection at Glasneven, Ireland.

A census of the plants found wild or growing spontaneously in the streets of Paris shows that the number of such plants is not fewer than 209. In the courtyard of the Louvre, Place du Carrousel, forty-five species may be found. The banks of the river and the canals furnish the greater number.

A tree of *Wellingtonia gigantea* planted by Queen Victoria at Floors Castle, the seat of the Duke of Roxburgh, in August, 1867, has now attained a height of sixty feet. The tree was five feet high when planted. The specimens of *Picea pinsapo* and *Araucaria imbricata* in the grounds of Floors Castle are also remarkably fine.

Arbor Day in Japan is to be made even more of an occasion than in the United States. All the scholastic authorities in Japan have taken to the idea, and it is proposed, through its adoption, to interest all the boys and girls of Japan in the study of botany—the state working out a profit in the establishment of forests wherever the growth of timber is now required.

Oranges from the Jerusalem citrus belt which is mainly the region round about Joppa, the sea port of Jerusalem, are now found in several markets of the world, including the United States. This revival of the orange industry in the holy land is said to be due to the colonization of a number of Jewish families who had been driven out of Russia by the well known Jew-baiting tactics of the Russian authorities.

The Royal Late Cooking apple is attracting attention in England. The skin is light yellowish green, and the flesh brisk, juicy and pleasantly flavored. The growth is vigorous, and somewhat resembles that of Blenheim Pippin, and the tree is a heavy and regular cropper. This variety was raised by Owen Thomas, chief of the Royal Gardens at Windsor, and when exhibited before the Royal Horticultural Society on January 14th last, the fruit committee conferred an award of merit upon it.

The Douglas Spruce spar which forms the great flag staff at Kew is believed to be the finest spar in Europe. It was presented to the royal gardens in 1861 by Edward Stamp, and was cut in the forests of British Columbia. Its total height is 159 feet, of which 12 feet are sunk in a ventilated bricked pit. The age of the tree was about 250 years, and its total height 180 feet. A section cut from the base of the spar before its erection in 1861 is contained in the museum, and shows the closeness of the grain of the wood, having eleven annual rings to the inch.

Robert Thomson, writing to the British foreign office on the agricultural products of Tolima, Colombia, says that vast pastoral regions are converted into comparatively barren wastes in the season of drought; but there is one exception to this subversive power of the fires. The Chaparro tree, *Rhopala obovata*—"a humble tree with contorted and rugged trunks and branches and scabrous leaves, a tree presenting the most weird aspect conceivable"—not only resists the effects of the flames, but, like the salamander, actually flourishes in the region of fire, which is so destructive to the ordinary members of the vegetable kingdom. Indigenous to South American countries, the Chaparro attains a height of from fifteen to twenty feet, and its distorted trunks measure from nine to twelve inches in diameter.

Fruit growing in India, especially in the north-west Himalayas, appears to be a business capable of considerable development, and likely to be very profitable. The cultivation of English varieties of apples, peaches, plums, cherries, &c., in and around Kumaon and Chaubattria has already been successful on a small scale. It is thought that growers would readily find a market for their produce in Calcutta and in the towns, villages, and stations where Europeans are to be found. For many years the British Government has had fruit-tree nurseries at various points, and young trees, cuttings and grafts of tried varieties of fruits have been freely distributed with a view to encourage and develop in this direction the food supply of the empire. Many native agriculturists have already orchards in bearing, and are doing well. The Ribston Pippin succeeds at Kumaon; peaches are a success, and apricots flourish and bear abundantly; cherries, pears, and raspberries have adapted themselves to the district.

OUTLOOK IN KANSAS.

Editor of THE NATIONAL NURSERYMAN:

Having recently corresponded with forty of the leading horticulturists of the state regarding soil moisture and present condition of fruit buds and prospects for fruit, we have the following summary: There is a fair amount of soil moisture all over the state, fruit buds are yet dormant, with the exception of some apricots and a few of the Japanese plums which were sensitive to the mild weather of February, the warmest February known in many years. The present outlook for all kinds of tree fruits is considered unusually good.

Nursery trade will be rather light compared with previous years owing to low prices and short crops in portions of the state for the last two years. Recent snows covering most of the state have improved the soil moisture and will somewhat encourage the disposition to plant.

Crete, Neb.

E. F. STEPHENS.

AS PROMISED

In our last number, we now give the names of more varieties which have been added to the list of plates, which heretofore could only be procured hand painted, but are now lithographed by that progressive firm the STECHER LITHOGRAPHIC Co., of Rochester, N. Y. Early Rivers, Old Mixon Free, Old Mixon Cling, Picquet's Late and Susquehanna Peaches; Jessie and Ulster Prolific Grapes; Collins' Prolific, Long Bunch Holland, and Moore's Ruby Currants.

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Gault Raspberry.
Columbian Raspberry.
Lincoln Coreless Pear.
Koonce Pear.

Parker Earle Strawberry.
Greensboro Peach.
Clematis—Paniculata.
" Kermisina.
" Madam Ed. Andre.
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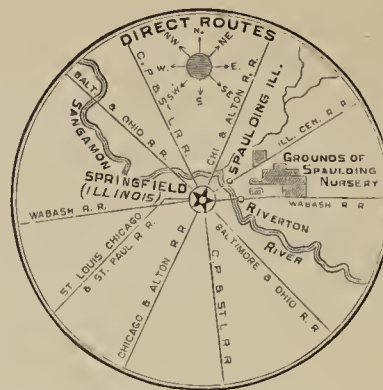
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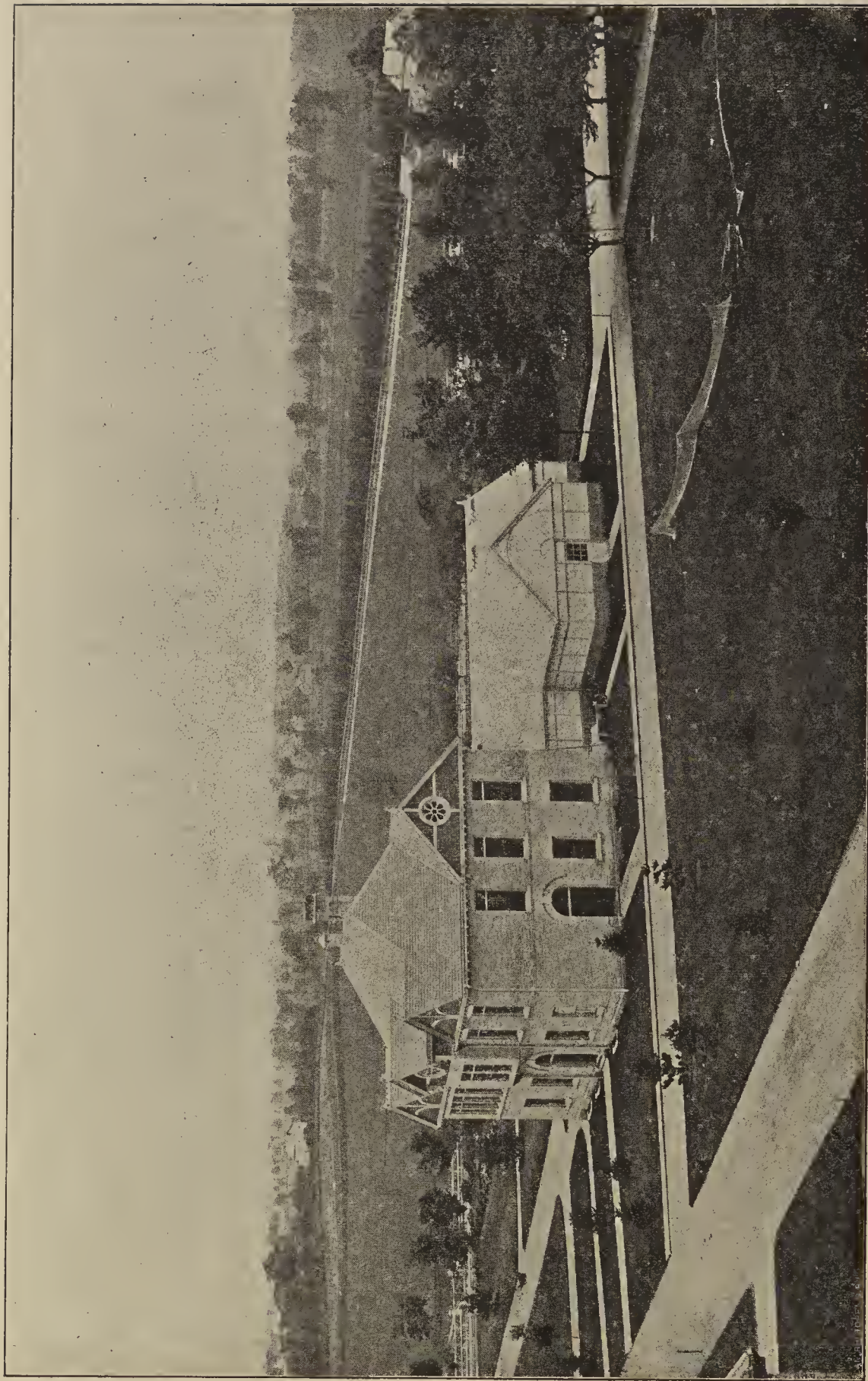
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FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. IV.

ROCHESTER, N. Y., MAY, 1896.

No. 4.

SPRING SALES.

Special Reports From Various Points Regarding the Season's Trade.

UNUSUALLY WARM WEATHER CAUSED A RUSH ON
PACKING GROUNDS—UNEXPECTED DEMAND FOR
STOCK TOWARD THE LAST—INCREASED SALES
—LOW PRICES KEPT RETURNS DOWN TO
USUAL FIGURE—LITTLE SURPLUS STOCK
—BETTER FEELING IN THE WEST—
FRUIT PROSPECTS GOOD.

Following are reports from all sections of the country regarding the season's trade:

MOORESTOWN, N. J., April 15.—C. F. McNair, Manager Rogers Nursery Co.: "There has been a large demand for trees this spring, decidedly exceeding our expectations; but we find money scarce, and a great complaint among planters in regard to prices on their products."

CAYUGA, N. Y., April 18.—Wiley & Co.: "Our spring sales are giving us lots of hustle. The amount of stock handled by us this spring will exceed any spring packing in ten years, but we fear that cash returns on account of extremely low prices will be unsatisfactory. May some provision hasten the time when the hard-worked nurseryman will get better returns for his outlay of strength and capital."

READING, Mass., April 15.—Jacob W. Manning: "Taking into consideration the slowness of the opening of the season and the volume of trade handled up to the present time, it necessarily does not compare favorably with that of last year, when we had at least a month of shipping season more than we have this year to the present date."

"On the whole, however, we expect to hold the trade where it was last year, and not suffer any decrease in its volume."

WEST CHESTER, Pa., April 14.—Hoopes, Brother & Thomas, Maple Avenue Nurseries: "We have at present all we can attend to and if prices were not below the cost of production, we should have nothing to complain of. If nurserymen would only carry on the business in a legitimate way and not endeavor to undersell each other and force the market prices below the cost of production,

we believe they would have sold as much during the last year as they have done and at the same time would have realized something for their trouble

"We think, after the spring business is over, there will be very little good salable stock left, but there will be very little money to pay for the expense of carrying on the business."

MORRISVILLE, Pa., April 18.—Samuel C. Moon: "We are having a moderate trade in a valuable class of ornamental stock at fairly good prices, but the business will not be likely to exceed last spring's trade. All this week weather has been very hot and unfavorable for our business. Magnolias are now in full bloom and are very fine this year. Magnolia Kobus, claimed to be the hardiest magnolia, is blooming on young seedling plants about 6 to 8 feet high. It has been considered a shy bloomer while young, but these seedlings, now six years old, have bloomed sparingly for two seasons. It blooms with conspicua and three or four days before Soulangeana, flowers pure white, smaller and whiter than conspicua but larger than stellata. I find it an excellent stock for grafting stellata on, which is an elegant little bush, but so slow a grower that it is hard to get up to salable size and is always scarce."

MILFORD, Del., April 17.—A. Pullen: "We are exceedingly busy—more so than in many years past. Fruit trees, more especially peach and Japan plum, were in greater demand this season than heretofore. The wholesale trade in these lines was strong and the local planters' demand was much beyond any expectations. We have handled from our nurseries fully four hundred and fifty thousand fruit trees this season, and yet this amount is not more than half the quantity called for. The low and unremunerative prices for grain and farm products generally throughout the country and the well proven value of fruit growing as a source of revenue, is no doubt the prime cause of such a demand for fruit trees."

"At this writing we are having summer heat and vegetation of all sorts is in rapid growth. Fruit trees are in full bloom, and the outlook for a great harvest was never better for the Delaware peninsula than at this time."

DANSVILLE, N. Y., April 18.—James M. Kennedy of Thomas Kennedy & Sons: "Our spring sales have been much larger than a year ago, at least 20 per cent. We should judge that all the leading firms have done a much larger business than a year ago. Little if any digging was done here before the 1st of April, which made the digging and shipping season very short and busy. It is safe to say that this spring, Dansville has shipped more trees than in any spring before, by at least 20 per cent."

"As to the retail trade we can safely say it has sur-

passed any year by a large amount. Little if any surplus stock is left except some varieties in standard pear and dwarf pear and apple. All fruit trees were in good demand, prices ruling low.

"We are confident no nursery stock in this vicinity has been injured by the winter, and last year's budding promises to be extra fine. The amount of stock to be planted here this spring will be from 10 to 20 per cent. less than last year.

"The prospects for next fall and spring as far as we can judge at this writing are very good as to making large sales but the prices will rule about as last year with a slight increase on some kinds."

PORTLAND, N. Y., April 25.—C. S. Curtice Co.: "We believe the grapevines grown in this section are well cleaned up, with the possible exception of a few varieties on which the demand has been lighter than usual. Concord vines have been very scarce, and practically none to be had for some time past. There was less than the usual supply of them, and while the demand from the trade probably was no larger than usual, and perhaps not so large, there was a heavy demand from planters, largely for the purpose of resetting in vineyards where they were killed out by the severe winters of '94 and '95, and the spring frost of '96 which killed some vines; also nursery planting of vines was considerably reduced in the spring of '95 over the preceding year. Add to this fact that one year old vines as a rule did not make as satisfactory growth as usual, which cut down the number of salable vines, it is fair to presume that there has not been over two-thirds the amount of trade that is usually transacted in this section.

"Prices have ruled fully as low, or lower than for the preceding two years; undoubtedly below the cost of production in many instances.

"We are unable to state at this writing whether planting will be reduced this spring or not; but at the price grapes have been selling for one or two years past, there is no reasonable ground to expect a very large demand for vines from planters, and it would seem to be a wise policy to reduce planting still further."

CENTRAL STATES.

KALAMAZOO, Mich., April 25.—Charles A. Maxson, treasurer and general manager, Central Michigan Nursery Co.: "Spring opening so suddenly has been a source of loss and inconvenience to nurserymen at this point. Spring shipments have been greater at this point than in former years, peach trees predominating."

GREENVILLE, O., April 17.—E. M. Büechly: "We are very busy now making deliveries of fruit trees. Have not found the small fruit plant trade equal to last year, but the tree trade has never been so good as this spring. Sold out on Eldorado blackberry and Downing's Winter Maiden Blush. As a whole our trade has been very satisfactory."

NORMAL, Ill., April 15.—Augustine & Co.: "We are pleased to state that our sales are much exceeding our expectations for this spring. Thus far they have in dol-

lars and cents been about the same as last spring, but prices are somewhat lower, so that the quantity of stock handled is greater. Sales continue to increase each day up to the present writing."

OSAGE, Ia., April 21.—Gardner & Son, Osage Nurseries: "The nursery trade in our section is better than it was a year ago. Sales are as large, or larger, and but little credit is asked for; the reverse was the case last season. There is but little surplus stock on hand. Evergreens of the larger sizes are getting scarce. We expect to grow six to eight millions from the seed. The demand for these trees is rapidly increasing. The planting of apple, cherry and plum will be larger than usual. Season rather late here."

ATLANTIC, Ia., April 15.—Silas Wilson: "We are having a fine spring here, and an abundance of rain. All the trade we can take care of. Twenty-four hours is a pretty short day for us. Only complaint, low price of stock. Too many nurserymen are growing stock for little or no profit; but I think no one is to blame but themselves. They could easily get more for their stock, if they would ask it. We believe the nursery business would improve very much if the growers generally would ask more for their stock."

ELGIN, Ill., April 15.—E. H. Ricker, Manager Ricker Nursery Co.: "We are now in the midst of our shipping season. Trade has been rather slack until of late. We do not expect as large a trade as usual, but think there will be a large number of small evergreens planted by nurserymen, for the purpose of stocking up. The orders we are now receiving would indicate the above.

"We have the finest stock and in the best condition of any we have ever offered. We are now offering it low to accord with the times, and find that stock must be sold low in order to sell it at all. There will certainly be a shortage on some varieties of evergreens, especially in small transplanted stock such as is generally purchased for lining out."

WAUKEE, Ia., April 14.—John Wragg & Sons, Central Nurseries: "We are now right in the midst of our delivery. Our sales are right up in many respects to any past year. The sales on many things in our line are without precedent. Stoddard plum sold completely out. Redfield raspberry gone. We are handling at the rate of from two to six car-loads per day. We opened our spring shipping season about the first day of April, and will have the same rush throughout the month to get our orders off.

"There seems to be a better feeling prevailing throughout the West. Money matters are easier, and there is a disposition on the part of the people to plant, and we will say, taking it all in all, this season will be one of our successful years."

TADMOR, O., April 15.—N. H. Albaugh: "Nursery trade in the Miami Valley this spring has been fully up to the average. A little late in starting, but hurry and rush when it did come. Apples have been pretty generally cleaned up, and few old blocks left. Apples will be scarcer next fall, than for several years past. Peaches

were hunted up this spring. The only surplus was in cherry. They were sold low, and a good many three years blocks will find the brush fire this spring. Two-year-old cherry blocks have been generally sold, and good one-year blocks are much scarcer than for some years, thus warranting a fair price for cherry the coming fall. Plums have been hunted up closely, even to the best one year. Buds generally look well, and the outlook for a good summer's growth is splendid."

BRIDGEPORT, Ind., April 15.—Albertson & Hobbs: "We are exceedingly busy this season, having put up the heaviest packing we have ever made and though the season is advancing with us rapidly, we have yet on hand a large amount of packing to do and all that we will possibly be able to get through with before the season advances so much as to stop the packing. Have not had opportunity to leave home for some weeks and do not know much about how it has been with others, but we believe that the trade generally has been much heavier than was expected and that stock has been used up pretty closely, and we certainly think the indications for fall trade have not been better in years.

"What the plant is for spring we cannot report. We think stock has wintered in good shape and anticipate about the usual supply for the coming year's demand."

NORMAL, ILL., April 20.—W. A. Watson & Co., McLean County Nurseries: "Spring opened early with us, and the season was favorable for shipping up to the middle of the month, but the unusually hot days of the past week pushed the growth amazingly and stock not held in cold storage is generally in full leaf. Sales in this vicinity have been larger than was anticipated. The wholesale trade has equaled last spring's sales, and there has been an increase of from one-fourth to one-third in retail sales. More stock has been handled this spring than last, but prices have ruled very low and returns will not exceed last spring's. There is a surplus of pears and cherries that will have to be carried over to another season; other stock is pretty well cleaned up. Prospects for fruit were never better, everything loaded with buds or blooms.

"Planting this spring, despite the low prices, will be heavy; especially so in pears, cherries, plums and peaches, but lighter on apples. Planting nearly completed, and a fine rain last night improved the already flattering prospects.

"With better prices for farmers' produce, we look for improved conditions in the nursery trade."

DES MOINES, Ia., April 25.—C. L. Watrous, Capital City Nurseries: "Whatever is said descriptive of this spring's business must be said in the superlative degree. During the winter the work of taking orders for spring delivery was the most difficult that I have ever known salesmen to experience. The weather was cool and dry until about April 1st, when we had heavy rains, and after that hot weather day and night. I never saw unexpected orders come in so rapidly, nor the trees leaf out as quickly.

"All the nurserymen that I know have been, for the last three weeks, in a state of either mild or violent

insanity according as they were fat and sleek-headed and slept well o' nights or were nervous like the writer. I think we all were never sold out so closely, and never scraped the bottom of the platter so hard trying to fill the orders. The whole state is now soaked. In twenty-five years I have not known nursery stock of all sorts to be in a better state of growth at this season. Stock delivered in fair condition is going to grow, which will help trade."

IN THE WEST.

BEULAH, Col., April 22.—C. S. Harrison: "Our trade is entirely with Rocky Mountain evergreens and shrubs. Trade is twice as large as last year. We have quite a large government order to fill. There is a growing demand for the beautiful and hardy productions of the Rockies."

RICHMOND, Mo., April 16.—J. F. Pierce: "The prospects for fruit of all kinds were never better in this part of the country. If no late frost or sleet comes we will have a heavy crop of fruit. Your paper is a good paper; no one that is a lover of fruit can afford to be without it. Nursery trade has been good here this season. My trade is retail."

OTTAWA, Kan., April 13.—A. Willis: "We are pretty busy just now. Times are a little close and sales have been pretty near in proportion to the work done. I think with us our trade for fall of 1895 was a little larger than for fall of 1894 and for spring of 1896 a little larger than for spring of 1895; think stock in the nurseries of this city will be cleaned up about as close as usual. Prices low, too low for a reasonable margin of profit at wholesale."

CANBY, Ore., April 14.—J. A. Cox & Son: Sales in this vicinity were: Settlemeir & Son, Woodburn, 60,000; Robbins Brothers, Needy, 30,000; Walling & Jarish, Oswego, 35,000; Brownell & Co., Albany, 22,000; Pacific Nursery Co., Tangent, 18,000; Hillsdale Nursery Co., 5,000; Mount Taber Nursery Co., 8,000; Newburgh Nursery Co., 4,000; Vancouver Nursery Co., 30,000. My own sales have been about 15,000. Sales generally were some better than they were last spring though they are not of the best yet."

TOPEKA, Kan., April 18.—F. W. Watson & Co.: "Sales this spring have been about the average of the past two years. Apple trees sold a little higher than last year, especially the commercial sorts. Northern sorts went slowly, at buyers' prices. Cherry trees a drug; prices low, yet a fair quantity to burn. In plum trees the demand exceeded the supply; prices good. Peach were at about average prices, no surplus left. The plant here is about the same as last year.

"The season for packing has been very favorable. We consider the outlook brighter."

OTTAWA, Kans., April 20.—Brewer & Stannard, Ottawa Star Nurseries: "Our trade has been much larger this spring than it was a year ago, and it is our understanding that nearly everything in the West has been sold

except a few varieties of northern apple. We have had a very favorable spring for planting, and our deliveries have been going very satisfactorily. Collections in a retail way are better than for the past two years. Prices have ranged low, with some little improvement on apple. The western nurseries have very few two-year-old apple to carry over, and rather a poor stand last year makes the outlook for better prices another year very favorable."

SALT LAKE CITY, Utah, April 16.—M. E. Callahan, Treasurer and Manager Pioneer Nurseries Co.: "We have had the largest volume of business in our history; were all sold out before the season was half over. I believe this to be the case with the Utah Nursery Co., and the Salt Lake Co. also. Prices are very low. There will be about the usual amount of stock for fall and spring sale next year.

"We are planting more than twice as much as usual. The other firms are putting out their usual plant.

"Mr. Christopherson of the Lake Nursery Co., has gone to California for ten days. J. A. Goodhue of the Utah Nursery Co., is in Colorado making their delivery."

LAWRENCE, Kans., April 22.—A. H. Griesa, Kansas Home Nursery: "The trade has been unusually active in this, eastern part, of the state; the sales have been good, and as a rule pay on delivery. The times are dull, all farm crops are very low in price, so the prices of trees of all kinds were put down lower than ever before; nothing sold at usual rates except gooseberry plants, but all the stock on hand is fairly well sold.

"The idea might now be, that they would have sold nearly as well at a little better price, but it is better to sell than hold stock over even if no profit in the sale, as it costs to keep it growing.

"The prospects for fruit and farm crops are very good; seasonable rains, no frosts or storms. Every breeze is of the balmy, gentle zephyrs that are conducive to the growth of fruits and flowers."

FRUITA, Col., April 17.—A. V. Sharpe, Secretary Grand Valley Nursery and Orchard Co.: "Our trade thus far this spring, has been very good and in fact, has gone beyond our expectations. The sale of nursery stock will be fully as large in this and adjacent valleys, for 1896, as that of 1895. Nurseries from all over the country as well as many local dealers are represented here. The plant, in acreage increases each year in Western Colorado, but prices have a somewhat downward tendency. While the acreage for 1896 will be some larger than 1895, the price of trees makes the sale in dollars just about the same as for 1895. But for the stringency in money matters, there would have been a much larger acreage planted this spring.

"People in this state, as you well know, are clamoring for free silver, which means more money for them, with which to grow and buy trees. Nature and the climate does the rest. We have a fine showing for stock for spring 1897. Buds are starting out nicely."

CRETE, Neb., April 13.—E. F. Stephens: "Sales opened up slowly this spring owing to the open dry win-

ter. Only .67 of an inch of rain or moisture in three months. There is a general desire to replant or refill the loss of the last two years. The low prices of crops the past season and the scarcity of money has greatly interfered with trade. After the beginning of April, however, with the increasing prospect of a favorable season and with some local rains, prospects for business have steadily improved and the trade of the nurserymen all over the state as far as I can learn, as well as our own trade, will be better on the whole than last year.

"A very heavy, general rain started in on the afternoon and evening of the 11th of April, covering, as far as can be learned, the entire state, and in some portions of the state the rain was extremely heavy, perhaps the heaviest ever known in the month of April. The ground is now very well soaked all over the state. The farmers are feeling very much better. The wetting of the subsoil for which we have waited so long seems to have come at last.

"The prospect for winter wheat is very good, and the farmers are much encouraged. The outlook for trade for the remainder of the month is much improved with all nurserymen and the prospect for business the coming season fair.

"A little less than the usual amount of nursery stock is being planted. As most of the nurseries are overstocked, there is a general desire to reduce the surplus before planting as freely as usual. The prospect for fruit is very good, the spring being cool and backward so that blossoming of fruit trees will probably be delayed until good weather."

FORT SCOTT, Kans., April 21.—M. F. Schell, Secretary and Manager Hart Pioneer Nurseries: "Our retail sales were not up to our expectation or average this spring. We had a larger number of salesmen, but owing to low prices of farm products, sales were hard to make and orders small, but our wholesale and planters' cash trade West, in Colorado, Wyoming, Oregon, New Mexico and other states more than made up for the shortage in our retail sales. In fact, we do not think our wholesale trade has been larger for the past eight years than it was this spring. Not only have we held our old trade, but we find quite a number of new names on our books of reputable nurserymen in the East, mostly carload shipments. In fact, this is one of our specialties, carload shipments, of peach, plum, apple and cherry, also apricot, grape vines and small fruits. We attribute this increased trade to our facilities of packing, shipping, etc., having switches of the main roads leading out of Fort Scott, also express office right on our grounds.

"We are still packing, but our rush is over, although we are averaging a car a day of broken freight. We not only have cleaned up our own stock, but also bought what we could of our neighbors and cleaned that up also and we think within a week there will not be a marketable tree or plant on our grounds. We can say for our neighbors that they must have done a good business from

(Continued on page 48.)

EDWARD MORRIS.

Edward Morris of Fonthill, Ontario, is the son of an extensive English farmer who came to Canada with his family and settled in Ontario, when the subject of this sketch was ten years of age. After devoting a portion of the early part of his life in procuring an education, Edward Morris commenced while young in the mercantile business, in which he was engaged for fifteen years, and succeeded thereby in gaining a competency. But wishing to change his occupation for one more suited to his taste, he purchased a large farm in the Niagara district, Ontario, for the purpose of fruit growing. He planted thereon a large orchard of pears, plums and apples, and soon after became interested in growing small fruits. He was a pioneer in the Province of Ontario in that branch of horticulture.

His success thus far in fruit growing created a demand for plants, hence the idea was conceived of the nursery business, for the consummation of which he joined forces with a neighbor, S. W. Hill, who had a small nursery of fruit trees. The firm name was E. Morris & Co. While together their business prospered, and, finding the demand greater than they could supply from their present capacity, they purchased the Fonthill Nurseries, then containing 100 acres.

After two more years of increased business Mr. Hill accepted an offer from Stone & Wellington and sold his interest to them. The firm name then became Morris, Stone & Wellington. These gentlemen have continued the business since 1878 with a marked increase from year to year until it has assumed immense proportions. They purchased farms in the neighborhood as the requirements of the business demanded, and now the property comprises over 700 acres and can be classed as one of the largest nurseries on the continent.

Messrs. Stone & Wellington do the retail part of the business, with the head office in Toronto, and branch offices in Montreal, Chicago and British Columbia. Mr. Morris has the entire charge of the wholesale department and the growing of the stock.

The success of this extensive industry is largely due to the energy and untiring efforts of Mr. Morris, who, in his knowledge of horticulture, has but few peers in this country. This, with his business ability, enables him successfully to manage the industry in its various departments.

But his labors have not been confined to the massing

of fruit, flower and ornamental stock of the successful nursery described, for his influence and example have radiated throughout the surrounding country, changing the manner in the cultivation of many farms by the adoption of fruit growing, resulting in increased revenue thereby; and whatever the future may hold for him the past and present will stand as a monument of respect for him in the minds of many of those whom he has benefited with his example and advice in the manner of planting and cultivating the soil.

A PRETTY THEORY.

At the meeting of the Peninsula Horticultural Society a well-known horticulturist advanced and advocated the absurd theory that, by the budding or grafting of one kind of plant upon the roots of another, all new root growth would be like the bud or scion which was inserted into the root, *i. e.*, when pear scions are grafted upon quince roots, the new growth of roots will be pear roots, etc. He claimed that the pear leaves elaborated the sap from the quince root, and changed it into pear sap; hence the new roots would be pear and not quince roots. Those present at once questioned the truth of the statement, and instances were cited where the roots of dwarf pear trees had sent up quince shoots, and the peach roots upon which plum had been budded sent up peach shoots. It is a very pretty theory that the leaves change the sap to that of the kind of plant of which the leaves are the foliage; but it does not hold good, else why does the potato root, for instance, upon which the tomato has been grafted, still con-

tinue to yield tubers instead of tomatoes? Theory and practice must necessarily go hand in hand; but practice does not carry out the above theory in any instance — *Rural New Yorker*.

Minnesota spends \$20,000 annually in bounties for tree-planting.

Frederick C. Schraub, commissioner of agriculture of New York State, in his annual report says that chapter 338 of the laws of 1893 provide for the suppression of disease among fruit trees, and under this law the commissioner appointed last year the following gentlemen to take charge of this work, but no report is made by them of the work accomplished: Miles Frost, Athol; George H. Howard, New Haven; F. M. Fairchild, Hester, and R. W. Travis, Vincent.



EDWARD MORRIS.

The National Nurseryman.

C. L. YATES, Proprietor.

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ROCHESTER, N. Y., MAY, 1896.

THE SEASON'S TRADE.

Reports from the packing grounds throughout the country, prepared especially for THE NATIONAL NURSERYMAN, indicate more than usually lively times in shipping stock, because of the sudden and prolonged change in the weather, following a period of cold which delayed somewhat the usual preparations. The official weather report for the ten days ended April 20th, states that all records for that period were broken. Within two days there was a variation of temperature of 90 degrees, when the thermometer registered 6 degrees at Havre, Mont., and 96 degrees at Norfolk, Va. The result was that nursery stock started growth rapidly and herculean efforts were necessary to prevent blooming before its destination was reached.

Many nurserymen were surprised to receive a large increase in orders at the last, thus increasing sales much beyond anticipation; but the very low prices held down the returns, so that the total will not amount to more than the usual figure. There is still grievous complaint regarding the cutting of prices. Experienced nurserymen state that there is little good salable stock left and that the sales were conducted at so little profit as to cause regret that there could not have been a general understanding to sell at fair and remunerative prices. With apples at a ridiculously low figure there is little disposition to plant stock for another season. The only consolation left is the hope that this fact may contract the supply hereafter.

But there are the usual hopeful signs which the nursery-

man has learned to expect along with the discouragement. These signs vary. This time they are formulated on one hand by a tendency among farmers to turn from ordinary farm products to fruit growing because of unremunerative returns of the former. One nurseryman who has noted this fact says that he has sold this season 450,000 trees and yet has not met half the demand. Another says there is a better feeling in the West and a disposition to plant. And another states that his packing this season was the heaviest he ever made and that the indications for fall trade have not been better in years. "Everything in the West is sold and collections in a retail way are better than during the last two years," says another. And it is generally agreed that the prospects for fruit are good.

A prominent nurseryman says there is no reason why the demand for nursery products should lessen, and suggests that the question of chief import is how to grow nursery stock at low enough cost to meet the market price. It is probable that in this last observation he has sounded the keynote of the practical solution of the present problem. In every line of trade there have been revolutions owing to remarkable reduction in the cost of production. It is the inevitable result of competition. If the selling of nursery stock at retail at wholesale prices cannot be prevented, methods for producing first-class stock at greatly reduced cost must be devised and the market price first met and then increased gradually by the creation of a demand for the highest class of stock. Special inducements may have to be offered. This has been found necessary in other trades. The nurseryman may find it expedient to issue strong guarantees as to the freedom of his stock from insects and disease, and as to its being absolutely true to name. At all events the nursery business is not peculiar in that it has suffered from the effects of low prices, and there is every reason to believe that the outlook for the nurseryman will change for the better, as it is confidently believed that it will for the farmer and merchants generally.

AMERICAN ASSOCIATION.

The annual meeting of the American Association of Nurserymen will be held in Chicago on June 10th and 11th. At the last annual meeting it was voted to hold the meeting this year on board a steamer chartered for a trip up the lake from Chicago. But this plan was found too expensive. The requirement would be to guarantee 300 passengers at \$15 each. As the attendance at the annual meetings averages only 100 the deficiency would be too great.

The executive committee has decided to hold the sessions at the Sherman house. Secretary Seager will prepare a programme which will form a basis of discussion.

It has been suggested as a compromise on the plan prepared and the one now adopted, that the members enjoy a steamboat excursion along the lake front on the second day of the session, taking dinner on the boat. The expense would be moderate.

A concession of one full fare going and one-third returning, has been granted by the Central Passenger Committee, The Trunk Line Association and the Western Passenger Association. It is hoped that western members will make special efforts to attend and show their appreciation of the concession which the Western Passenger Association makes this year for the first time in several years.

Special efforts have been made to make the twenty-first convention profitable from a business standpoint and pleasant socially. Among those who will take part are: President Silas Wilson, N. H. Albaugh, H. E. Van Deman, J. H. Hale, E. H. Pratt, Robert Douglas, S. D. Willard, W. F. Schell, A. Willis, Charles A. Green, George W. Campbell, J. Jenkins.

INBREEDING VERSUS CROSSING.

The article in the March number of the NATIONAL NURSERYMAN on inbreeding vs. crossing is greatly at variance with the universally accepted theory and facts of evolution of fruits. The writer of the article takes issue with such men as Charles Darwin and Alfred Russel Wallace, two of the greatest scientists in this line of work that the world has ever produced; and not only this, but the article reflects upon the character of the experiment work of the Iowa Horticultural Society, and the writer of it is disposed to ridicule it and call it a fad. He says: "The Iowa horticulturists are so engrossed in the crossing fad as to neglect entirely the richest field of valuable work." Moreover, he grossly misrepresents the matter by not presenting all the facts in the case. This is all the more surprising, since he sets himself up as a teacher of the people; a servant in horticultural lore, and is supposed to be trustworthy in his statements.

In justice to the horticultural society and its experiment stations a few facts are here given that did not appear in the above-mentioned article.

The writer of the article says that only \$4.00 was offered at the last state fair as premiums on seedling apples. While this may be true he fails to mention the fact that the horticultural society is offering probably a larger sum than any other state in the Union as premiums on seedling fruits. On pages 16 to 19 of the published reports of the society will be found a list of these premiums, which in the aggregate amount to \$3,815. This is a standing offer, open to the whole state, including all exhibitors at the state fair. The writer could not be ignorant of these facts, for he is an officer of this same society offering these awards.

Furthermore, he says that while farmers were offering dozens to hundreds of seedlings for examination no member of the experimental committee was on hand to report on them or to offer encouragement to growers. Whether this is true or not, why did not he as a member of the society and as a horticultural editor interested in this line of work take note of these and direct the attention of these farmers to the premiums offered by the horticultural society?

Again, he says he thinks this neglect was due to the tendency to make seedling production a fad. In the following paragraph he advocates seedling production and mentions Ben Davis, Jonathan Grimes, Wine Sap and other varieties as once being seedlings, which is true; but will he tell us if he has ever known of a seedling that was not the result of crossing, either naturally or artificially produced?

The Iowa State Horticultural Society is not running in any rut or making artificial crossing a fad, but on the contrary, it is seeking by every means possible along all lines of experimentation to develop and originate varieties of fruit adapted to the soil and climate of the state. The experiment committee has always advocated the planting of seeds which is nature's method of producing new varieties, and in my last report on experiment work I especially urged this method, because every farmer can experiment along this line of work, whereas but few persons can do the crossing artificially.

Is it not a generally accepted fact that all of our choice fruits, with extremely rare exceptions (in cases of bud variation) are the results of crossing, either naturally or artificially produced?

The writer of the article under consideration mentions the common saying that but one seedling in ten thousand is of probable value; and why is this if it is not because the work of crossing is carried on by insects without any intelligence to guide it. Therefore, the results are very uncertain; whereas, the artificial process of crossing is the scientific method, working through known laws for a specific purpose or object. This is the method advocated by Darwin, who said: "Nature abhors self-fertilization," which is, in fact, inbreeding. It is by this process that Luther Burbank of California, has been enabled to give to the world his marvelous creations of new fruits in so short a time. It was by crossing our native grapes with foreign varieties that Mr. Rodgers of Massachusetts, produced his wonderful collection known as Rogers hybrids, and Professor Munson, of Texas, has in more recent years originated many valuable varieties, all produced by the process of cross-fertilization, working for definite results.

These are but a few of the many cases which might be mentioned to show the superiority of crossing over inbreeding. This work is not confined alone to the evolution of fruit, but the florists everywhere are producing marvelous results in the new creation of flowers through crossing.

We are told by the writer of the article that it is altogether possible that really the most valuable experimental work in the origin of varieties is going on at the farms. This may all be true, and yet it is the result of crossing and not of inbreeding. There can be no inbreeding, strictly speaking, among fruits or flowers unless the blossoms are absolutely protected from the pollen of all other varieties, in which case the blossoms are self-fertilized; otherwise it would be crossing.

Denmark, Iowa.

G. B. BRACKETT.

SPRING SALES.

(Continued from page 44.)

the amount of stock they purchased from us and have not been offered any of their surplus except on apple.

"We are making our usual plant this spring, with the exception that we are increasing on peach, having planted three hundred bushels of pits last fall, also plum and cherry and we have cut our apple list down in proportion. We find there is more money in the former named stock than the latter. As to the other firms in this section, will say we do not think they are planting as largely this spring as usual. Prices have been so low that there has not been much encouragement to plant a large assortment, therefore they are confining their planting to staples, such as apple and peach, and are buying their other stock. We look forward to a good and large trade next fall and also for better prices. In fact, we have received better prices for our stock this spring than we did last fall, fully ten per cent. anyhow.

"We find by talking with some of the leading nurserymen that in their opinion there will not be so much cutting and slashing of prices, as they have found out that they are only cutting their own throats by following this unbusinesslike method of disposing of their surplus stock. We would rather sell half of our stock at good living prices than to sell all of it at prices below the cost of production as many have done, even if we had to burn up the half that we could not sell.

IN THE SOUTH.

RICHMOND, Va., April 14.—W. T. Hood & Co., Old Dominion Nurseries: "Our spring business has shown a continuance of the unfavorable trade conditions of last fall, *i. e.*, a large stock, low prices, and but a light demand.

"We believe that we are naturally hopeful, and perhaps we show that we are so by planting about our usual large stock, in spite of the present poor prospects. We have a large retail trade, and our agents' sales so far show an advance over sales to same date of 1895, but we 'push' for this trade. We see little prospect for better prices."

DENISON, Tex., April 13.—T. V. Munson: "Our sales for the season just closed here have been more numerous than for last year, but the average size of orders both this season and last, is less than formerly, showing an increase in planting for family use, and a decrease in planting for market.

"We have our new stock out earlier and in better shape, possibly than ever before, and the spring has been very favorable to such work, hence the nursery makes a good appearance for so early in the season. Other nurseries in this vicinity report about the same character of sales as we have had, as compared with other seasons. We sold out close in most lines of stock."

BALTIMORE, Md., April 18.—Franklin Davis Nursery Co.: "We are just closing the heaviest spring packing that we have ever done. Prices continue very low, and we look for no better in the near future. Still we do not feel discouraged and expect to make our usual heavy

plantings. We have already planted about seventy-five acres in peaches to bud the coming summer. We are also making heavy plantings on apple, plum, and standard pear.

"We see no reason why the demand for nursery products should lessen. The question of main import here is to find out how to grow trees, etc., at low enough cost to sell profitably at market price. Good prospect for fruit here."

AT ROCHESTER, N. Y.

W. S. Little & Co.: "Sales larger, receipts smaller."

Brown Brothers Company, Continental Nurseries: "Our spring '96 sales are very satisfactory, and we believe the prospects for next fall and spring are brighter than they have been in some years."

Ellwanger & Barry, Mount Hope Nurseries: "Business this spring has been good, but the season has been entirely too short. If the weather had been favorable there would doubtless have been a very large demand for stock. Prospect for fall is good."

Glen Brothers, Glenwood Nurseries: "We are glad to be able to report that our spring shipment is considerably larger than that of a year ago, and the prospects for the coming season are quite good. Sales have started better than usual, but it is almost too early to make any reliable prediction as regards the business for 1896."

T. C. Wilson: "My sales this spring have been twice as large as any previous season, but prices have been low. I credit the increase of sales, however, to the advertisement that I keep in THE NATIONAL NURSERYMAN. It has brought me many new customers. Continue to run the advertisement until I send you new copy. I look for a much larger increase for fall trade."

Robert Ades, president of The H. E. Hooker Co.: "Sales have been good with us this spring. We have found an outlet for all our surplus stock and have been compelled to turn away some good orders which came late. Prices have ruled low, but are no worse in our line than in all other kinds of trade. We anticipate a good fall trade at better prices on some articles which we think will be less abundant than last season."

Irving Rouse, Lake View Nurseries: "The packing season this spring has been shorter than usual, owing to severe weather early, followed by mid-summer heat, which has started everything out at least two weeks earlier than expected. I think that business has been fairly good, better than last year, and the prospects for next season are good. Planting has been curtailed for the last two years, and less stock is coming into the market the coming fall than for several years. This should make prices materially improve."

John Charlton, University Avenue Nursery: "I have found business this spring larger than I anticipated early in the season and have had all we could do to supply our old, and quite a few new customers. Prices have ruled low and I believe will continue to do so for several seasons

yet, as there is about as much stock to come again on the market for next fall and following spring.

"The large surplus of stock, especially of the light grade $\frac{5}{8}$, offered in such vast quantities, has a great effect in keeping down prices, making it difficult for the retailer to sell as formerly, and make a fair profit for his labor and capital invested. I look for a good trade next fall."

Allen L. Wood, Woodlawn Nursery: "This season was a hustler. We dropped out of winter and came into summer without any spring. My sales were very large this season, fully double what I ever had before. Owing to the season I had to keep all my packers working fourteen hours a day. That was the only way I could keep even. I have been in this business eighteen years, and this season was the worst I ever went through.

"Blackberries, red raspberries, currants and gooseberries were in good demand. The Pearl gooseberries had a great run for the first year; 2 years No. 1 were all sold last December; 2 years No. 2 are all sold except a few hundred at this date. I had 65,000 of them last fall, of 2 years, and they have all been sold.

"The Columbian raspberries had a large run this spring. I supplied over two hundred nurserymen with them this season. I am very busy packing yet. Orders keep coming in.

"I have just commenced to plant, this past week. I planted last fall one block of 600,000 currants, and 300,000 gooseberries. They are looking extra fine at this date. Among the new things I am going to propagate this season are the Conrath, Eureka, and Mohler black raspberries; Miller and Loudon red raspberries; Golden Mayberry, strawberry-raspberry, and the raspberry-blackberry, (Logan)."

IN THE MIAMI VALLEY.

DAYTON, O., April 27.—The season just closing was one peculiar in many respects. Prices were at "rock bottom" to start with, but the languid condition of the business and unusual delay on the part of purchasers, excited the apprehension of most holders who straightway began to "get under" one another as best they could, disregarding the cost of production, value, and everything else, in their heartless scramble for orders. This, however, proved to be an unwarranted proceeding, as the demand was equal to the supply of stock in this valley with the exception of cherry. Orders have been small, very small, but unusually numerous, equal in number to those of any of the palmy years gone by. We refer to the wholesale trade only. Dealers and agency business generally reported light.

The light business transacted by the dealers and smaller nurserymen throughout the country has consumed the stock with the exception above named, which corroborates the conclusion drawn from other reliable evidences, that the stock throughout the country is scarce enough to be consumed by a light general trade. When outside business conditions recover, and there is an ordinary demand for stock in a wholesale way, it will be found inadequate.

When we will reach that point is the only debatable question.

DUE TO THE SALESMAN.

MARCELINE, Mo., April 27.—S. H. Linton said to-day: "Our packing season has just closed. Our trade was much better than we expected, though we found many of our best customers short with cash. The first of March gave poor prospects for trade, but as the planting season came on the farmers became more interested in planting until we were badly crowded in filling local orders, besides the orders sold by canvassers and the wholesale trade. We made quite a number of deliveries in various parts with good success, not having a single order left on our hands and our stock gave universal satisfaction.

"This I consider due to the salesman, who worked on his own merits; nothing sold nothing made. Every place we delivered we found deliveries made by other parties with large amounts of the stock to be sold for just what it would bring. This I consider due to poor salesmen in part, and the advance of the commission the other part. Missouri is fast coming to the front as a fruit country.

"The prospects are good this season for a heavy crop of fruit, though the tendency is strong to over blooming. Small fruits, including grapes and cherries, are very promising. The season is already two weeks in advance of last year."

AT GENEVA, N. Y.

GENEVA, N. Y., April 28.—W. & T. Smith Company, The Geneva Nursery: "This spring has been one of the busiest we have ever experienced. The season opened so late that it crowded our shipping season into a very short time, and we think we had more than the usual amount of stock to handle besides. We find ourselves sold out pretty well on nearly all lines of stock. Apples were expected to be quite a drug, but we find they are, as a rule, pretty well cleaned out in this market. Cherries, quinces, plums and peaches were very scarce during the latter part of the season. There are practically none in this market."

During last month apples which had any claim to quality, sold well in the New York market. These prices were realized: Winesap, \$5 to \$6 per barrel; Rome Beauty, \$4; Ben Davis, Baldwins, Willow Twig, \$3.50; Seek-No-Further, Russets, \$3.

"It may be interesting to know that many shrubs and plants that are entirely hardy in the eastern states, much further north than this, do not thrive here, viz: rhododendrons, kalmias, Trifoliate oranges, Japan chestnuts, English walnuts, Turkey's beard, etc., says T. C. Wells, Manhattan, Kansas, in *American Gardening*. Perhaps our limestone soil is not suited to some of them, but probably our dry fall and winter is the greatest difficulty. It is no colder here than in places where the same trees grow in the east."

Among Growers and Dealers.

E. Morden, Niagara Falls, Ont., is secretary of the Niagara Falls Horticultural Society.

Charles E. Langdon has started a nursery at Lake Whitney, Conn. W. B. Conway is superintendent.

The Western Michigan Nursery Co., has been organized at Benton Harbor, Mich., with a capital stock of \$50,000.

James Mott, Orlando, Fla., it is reported, is a stockholder in an association with a capital stock of \$50,000 for the growth of the pomelo.

W. C. Hoyt of Kalamazoo who has been L. G. Bragg's partner for ten years has retired from the firm; Mr. Bragg will continue at the old stand.

The Central Michigan Nursery Co., recently purchased a very choice farm well adapted to fruit growing near Kalamazoo. They report having a large force of agents with good prospects for a large fall sale.

A. H. Griesa, Lawrence, Kans., has for years been growing new fruits, when offered by a good firm, side by side with standard kinds for the purpose of testing their value. In his catalogue he presents the results. He believes that this plan will dispose of frauds effectively.

Jacob W. Manning, Reading, Mass., has not failed to attend every convention of the American Pomological Society since 1860, when the seventh convention of that organization was held in Philadelphia. At that meeting were Barry, Wilder, Downing, Warder, Elliott, Meehan and others.

J. H. Hornbeck, Sonoma county, California, has grafted more Bartlett's to apples this season. Those grafted heretofore have proved satisfactory, and from the fine showing of fruit spurs on last year's wood, it is evident that some thinning out will have to be done. The Arkansas Black is his favorite.

One of the pioneer nurserymen and orchardists of California, Charles W. Reed, passed away at his home in Yolo county recently. Mr. Reed was widely known in connection with the fruit industry in California, having been among the first to ship fruit in carload lots overland to the eastern markets.

The *Minnesota Horticulturist* publishes a cut and sketch of Amasa Stewart, one of the older nurserymen of the country. Mr. Stewart engaged in farming and the nursery business in La Salle county, Illinois, in 1855, when he moved to Le Sueur county, Minnesota, where he established a large nursery. He remained there until 1865 when his stock was destroyed by grasshoppers. He moved to Minneapolis and continued the nursery business, furnishing trees which to-day adorn many beautiful grounds in that city. In 1882 he went South on account of his health, and to-day is at Lamarque, Texas, in the business of growing fruit. He is 68 years old.

At the recent meeting of the Ohio Horticultural Society, L. B. Pierce of Tallmadge, O., said it was easy to get the *Magnolia acuminata*. All one had to do, was to give a tree agent an order for a high-priced magnolia, and ten to one he would deliver a cucumber under its botanical name. He did not consider the cucumber a handsome tree, as it grew straight and narrow with no particular grace of outline. The best use one could make of it was to cut it back to the ground when it got a start of a dozen years and let it throw up a bundle of sprouts. These would make a nice clump of tropical looking growth, the leaves sometimes under the strong sap supply attaining a length of eighteen inches and a breadth of eight.

WELL PLEASED WITH THE ADVERTISEMENT.

GARDNER & SON, OSAGE NURSERIES, OSAGE, IA., APRIL 25.—“We are nearly sold out of stock. We are very much pleased with the return we have received from our advertisement in THE NATIONAL NURSERYMAN. You will hear from us again when we have a surplus on hand.”

INDISPENSABLE WITH THIS FIRM.

LINTON, OREN & CO., EAST HILL NURSERIES, MARCELINE, MO., April 27.—Enclosed please find P. O. order for two dollars for THE NATIONAL NURSERYMAN, which is indispensable with us. Of all the papers that come to our office there is none more appreciated or read more closely.

Recent Publications.

An elaborate catalogue is issued by the Japan Saitama Nursery Co., Kita-Adachi, Saitama-Ken, Japan. Special attention is paid to Japanese lilies, twenty-five varieties of which are illustrated by lithographs. Iris, maples, pæonies, persimmons and many shrubs are catalogued.

Those who contemplate the purchase of a dictionary or an encyclopedia, or are solicited for the purchase of either, should weigh well the offers which are made. No valuable encyclopedia can be sold at a ridiculously small sum. A word to the wise is sufficient. The Standard Dictionary, for instance, is beyond question in the front rank of modern dictionaries, and its price is both moderate and reasonable.

One of the most valuable bulletins issued by the New York Agricultural Experiment Station is No. 96, December 1895, presenting a report of analyses of commercial fertilizers collected during the fall of 1895. It has been prepared under the direction of L. L. Van Slyke. It contains just what the consumer wants to know upon the subject of fertilizers. The general summaries with which this station prefaces its bulletins are a valuable feature.

Among the catalogues deserving of special mention because of their conformity to modern ideas of the printer's art is that of Samuel C. Moon, Morrisville, Pa. It is an attractive book of 48 pages, the text and half-tone illustrations being printed upon enameled paper of generous weight. Its very appearance commands its perusal and preservation and the subject matter maintains the standard of these well-known nurseries established by Mahlon Moon in 1849.

The U. S. Department of Agriculture is vying with the nurserymen in the presentation of arguments for tree planting, in attractive form. The department has just issued a bulletin on “Arbor Day: Its History and Observance,” by N. H. Egleston. In it one may learn all about Arbor Day from the time of its first observance in Nebraska, Secretary Morton's state, on April 10, 1872. This is one of many publications to which attention has been called recently as benefiting the nurseryman directly in creating a demand for his stock. In addition to arguments in favor of Arbor Day observance, the bulletin contains opinions of representative men and suggestions for programmes.

The popularity of “The Horticulturist's Rule-Book,” by Professor L. H. Bailey, is attested by the fact that although the third edition was given to the public only last May, a fourth edition is now called for by the publishers. Professor Bailey has made various corrections and explanations in the text and has added paragraphs upon yields of leading seed-crops, the customs regulations, methods of preserving posts in vineyards and other places, figures of grape packing, a statement of the pollination of grapes, and a scheme for the classification of horticultural industries, and the index has been extended until it now comprises about two thousand entries. It is a valuable manual for the nurseryman and horticulturist. New York and London: MACMILLAN & Co.

“The Florida State Horticultural Society's Annual for 1895,” recently received from the printer, is an invaluable horticultural handbook for that region, containing, as it does, a full report of the last annual meeting; a tabular list of the fruits of Florida, showing the relative adaptability of the different varieties to the several sections of the state, with full description and account of each, including over 100 varieties of citrus fruits, over 100 varieties of deciduous fruits, and over 50 varieties of tropical fruits; and a history of Florida freezes and their effects for a century and a half, down to and including 1895. It is a compendium of latest practice and best methods for practical growers and information for prospective planters, as well as readable outline of horticultural progress. It will be sent free to any one remitting \$1, as membership fee for 1895, to A. H. Manville, secretary, Glon St. Mary, Fla.

The Chrysanthemum is attaining a high place in French horticulture. But this result is recent. There has just been established “La Société des Chrysanthémistes du Nord de la France,” which has attracted not a little attention in England and America among growers of “la grande fleur.” This is the outgrowth of the rapid advance made during the past decade in chrysanthemum culture in France. A timely publication is “Lé Chrysanthème,” by Anatole Cordonnier, secretary of the new

society referred to, vice-president of the chrysanthemum committee of the National Horticultural Society of France, member of the National Chrysanthemum Society of London, and of the American Chrysanthemum Society, Chevalier du Mérite agricole and proprietor of "Grapperies du Nord" at Roubaix and Bailleul. The subject is treated in the exhaustive manner which would be expected at the hands of so distinguished a horticulturist. Every feature indicates a wide knowledge of the circumstances attending the development of the chrysanthemum. The opening chapter describes the chrysanthemum in France and abroad in 1886, and the succeeding pages graphically portray its advance in France to the year 1895. There follow general considerations on the culture of the chrysanthemum. Seventy-six pages are devoted to this, the first part. The second part comprises five series of descriptions of the best varieties. The third part treats of the chrysanthemum in England and in France, the Society of Chrysanthemum Growers of the North of France, new varieties, qualities of a good flower, chrysanthemum expositions, varieties most exhibited in England, ornamental use of chrysanthemums. The volume is illustrated with half-tone engravings, several of which are of double sheet. Pp. 156. 8vo. 2 fr. Cover in colors. Paris, 8 Place de l'Odéon: OCTAVE DOIN.

The United States Department of Agriculture, Division of Pomology, has issued a valuable work on "Nut Culture in the United States," embracing native and introduced species. This work is the result of painstaking study upon the part of H. E. Van Deman, until recently United States pomologist. Its preparation was announced several years ago. It is another of the monuments to Professor Van Deman's studious application to pomology. It was in 1889 that he conceived the plan which has been followed in this book. By 1892 it was practically ready for the printer, but on account of lack of printing funds it was held back to await its turn with other deferred matter. Every nut and hurr and leaf used for illustrations was handled by Professor Van Deman and most of them were originally selected by him. He wrote the text with the assistance of W. P. Corsa and another clerk. The work comprises 144 pages of the size of those of THE NATIONAL NURSERYMAN, with wide margins and numerous plates. The subject is treated comprehensively and in a most entertaining manner. Experts in this line of pomology have contributed valuable experience. In the list of contributors are Professor L. H. Bailey, Luther Burhank, J. W. Kerr, A. S. Fuller, Robert Manning, Samuel C. Moon, James Mott, T. V. Munson, William Parry, H. M. Engle, O. N. Caldwell and other nurserymen and horticulturists. The opening pages treat of wild and cultivated nuts, nursery and orchard, propagation, planting, budding and grafting, transplanting, lack of fruitfulness, harvesting, and marketing. Then each kind of nut is described, the almonds, walnuts, hickories, hazels, chestnuts, chinkapins, pine nuts, cocoanuts and miscellaneous nuts. Methods of propagation and cultivation are treated in detail, the experience of many in all parts of the country being given. The work is a valuable addition to the literature of the subject which is limited, and it will do much to further the tendency to devote more attention to the culture of nut trees.

FRUIT GROWING IN UTAH.

The probable demand for nursery stock in Utah, the new member of the Union, is indicated in the following communication by the Hughes Fruit Company, Salt Lake City, to the *California Fruit Grower*:

There is a vast amount of fruit being planted throughout Utah, and since the new laws in reference to spraying trees have gone into effect, we see no reason why Utah will not, in a short time, be a very important factor in the fresh fruit and vegetable business. Utah has always been noted for its fine fruit, but it has been difficult, until the past year, to get our growers to use the same care that the California dealer uses in packing and marketing the fruit.

The average Mormon farmer, heretofore, has been picking his fruit with a club and bringing it into market in a springless wagon, but as we are becoming enlightened and have been admitted as a state, we hope to see Utah fruit rank second to none, which it will if proper care is used in handling it, as they do in California. Our Mormon fruit growers

are a very industrious, hard-working people, but have heretofore lacked the knowledge and experience in properly picking, packing and preparing their fruit for shipment, but they are rapidly "catching on" to our California friends' way of marketing fruit, which is unequalled.

Utah fruits have not interfered with our market for California fruits heretofore, owing to the fact that California fruit comes in earlier. We use a vast amount of fruit and produce here, distributing from these points to the mining country tributary to Salt Lake, Ogden and Grand Junction, which are the distributing points for the trade of the states of Utah, Idaho, Wyoming, Western Colorado and a portion of Montana. Trade throughout the inter-mountain country has been quiet, owing to the low price of silver, which shut down a great many of our mining camps. But in the last eight months there has been a general revival of business throughout all the mining camps owing to gold discoveries, and our new camp at Mercur, which is only thirty miles from Salt Lake, has received the attention of the moneyed men of the country and large numbers of people have been there. It is going to be a permanent camp and will be a fine outlet for Salt Lake jobbers. Among our other mining towns, which consume a large amount of fruit and produce are Park City, Enreka, Bingham and the Deep Creek and Marysville country which are flourishing and growing camps.

At Grand Junction, Colorado, where we have a branch house, there is a large amount of fruit raised, which the state of Colorado has been consuming until the past season. The peaches, pears, apples and other fruits, which are raised there in the Grand valley and are noted for their excellence and have commanded top figures on all markets, wherever they have been sent. The large amount of fruit coming in at that point this season will necessitate shipment to eastern markets. Our Grand valley growers are principally eastern men, who use every care in planting, picking and marketing their fruit, and we have not had the trouble in getting the growers to pack the fruit properly from there that we have experienced with our Utah growers. We hope to send a good many cars from our Grand Junction house to the eastern markets this year.

EXPORTS AND IMPORTS.

The United States Treasury Department reports that during the last fiscal year the value of plants, trees and shrubs exported was \$129,551. The countries receiving the largest quantities were: Quebec, Ontario, etc., to the value of \$73,474; Germany, \$22,251; United Kingdom of Great Britain and Ireland, \$9,765; Nova Scotia, New Brunswick, etc., \$9,308; Mexico, \$5,267; British Columbia, \$2,344; Cuba, \$2,073; Venezuela, \$828; Belgium, \$817, and Japan, \$500.

The total imports of plants, trees, shrubs and vines, known as nursery stock (free) amounted in value to \$420,240. Of this amount the customs district of Aroostook, Me., contributed \$653; Baltimore, Md., \$1,968; Boston and Charlestown, Mass., \$15,705; Georgetown, D. C., \$1,779; New Haven, Conn., \$827; New York, N. Y., \$304,654; Philadelphia, Pa., \$15,624; St. Augustine, Fla., \$1,414; San Francisco, Cal., \$4,221; Buffalo Creek, N. Y., \$9,619; Chicago, Ill., \$5,705; Cuyahoga, Ohio, \$8,850; Detroit, Mich., \$5,529; Genesee, N. Y., \$14,552; Huron, Mich., \$7,434; Niagara, N. Y., \$9,080; Vermont, \$1,421; Albany, N. Y., \$486; Cincinnati, Ohio, \$3,569; Denver, Colo., \$687; Indianapolis, Ind., \$2,489; Louisville, Ky., \$646; St. Louis, Mo., \$348.

The countries from which the largest quantities were imported were: Belgium, \$9,390; France, \$103,002; Germany, \$15,372; Italy, \$2,387; Netherlands, \$175,637; United Kingdom, \$52,357; Bermuda, \$7,205; Nova Scotia, New Brunswick, etc., \$653; Quebec, Ontario, etc.,

\$27,776; Mexico, \$892; British West Indies, \$6,055; China, \$1,370; Hongkong, \$687; Japan, \$13,605; British Africa, \$1,857.

Of plants, trees, shrubs and vines (dutiable), the total value of the importations was \$212,283. Of that amount, Boston and Charlestown, Mass., customs district received \$8,534; Georgetown, D. C., \$576; New York, N. Y., \$165,336; Philadelphia, Pa., \$25,805; Minneapolis, Minn., \$452; Buffalo Creek, N. Y., \$1,084; Chicago, Ill., \$3,565; Cuyahoga, Ohio, \$850; Detroit, Mich., \$364; Genesee, N. Y., \$1,237; Albany, N. Y., \$606; Cincinnati, Ohio, \$1,230.

Countries from which the largest imports were received were: Belgium, \$84,709; France, \$16,023; Germany, \$45,093; Netherlands, \$30,534; Switzerland, \$1,705; United Kingdom, \$28,917; Bermuda, \$515; Brazil, \$1,508; Japan, \$691.

DECADENCE OF ORCHARDS.

The great superiority of close root pruning is not always so apparent the first year, the tree giving more attention to striking deep roots than making top, says H. M. Stringfellow. Even for several years, as we all know, trees as ordinarily set do well, but this is due to the fact that a large amount of root is removed even then. But a comparison with these will prove that when the strain of fruit bearing comes the closed pruned tree with its roots deep and strong, out of reach of the plow, winter's cold and summer's heat and drouth, will stand up for many years, giving good crops long after the other with its lateral and surface system has broken down and died. How else are we to account for the early decadence of our latter day orchards? The planter in his haste for fruit demands big trees with plenty of roots and top, to support which, and to make them live, the nurseryman often transplants several times. This gives a mass of fibrous roots which will undoubtedly, if the season is good, make the trees live, but practically dwarfs them and destroys their future usefulness.

AS PROMISED

In our last number, we now give the names of more varieties which have been added to the list of plates, which heretofore could only be procured hand painted, but are now lithographed by that progressive firm the Stecher Lithographic Co., of Rochester, N. Y. Crown Bob and Whitesmith Gooseberries; Hillborn & Palmer Raspberries; Stone's Hardy, Wilson Jr. and Eldorado Blackberries; Greenville, Shuckless, and Timbrell Strawberries. Also a very handsome plate of the "Logan Berry" or Raspberry-Blackberry, which is now making such a stir in the Horticultural world.

Do not forget their list of ready made books, when in need of a plate book in a hurry. They have something to suit you no matter where located.

Send for catalogue giving list contained in each and price.

HEADQUARTERS FOR

Ridgely • Chestnut • Trees,

"Decidedly the finest and handsomest, really good, large Chestnut received."—*Pom. Dir., Washington, D. C.*

MILLER RED RASPBERRY.

Plants of my own growing—genuine—at reasonable prices.

COLUMBIAN, MAM.
WHITE,

Asparagus Roots.

BARR'S
MAMMOTH.

P. EMERSON, - - WYOMING, KENT CO., DEL.

When writing to Advertisers mention the National Nurseryman.

ALLEN L. WOOD, Woodlawn Nurseries,

: : : : : ROCHESTER, N. Y.



Surplus:



2,100 Industry Gooseberry
2,750 Houghton "
2,000 Eldorado Blackberry
3,000 Wachusett "
4,150 Agawam "
1,200 Wilson "
1,675 E. Harvest "

Also, Gregg, extra strong tips.
Ohio, " " "
Doolittle, " " "
M. Cluster, " " "
Palmer, " " "
Souhegan, " " "
Shaffer, " " "

...Also, a full line of Strawberry Plants, extra fine...

THE Syracuse Nurseries.

Nurserymen and dealers in the best quality of nursery stock should not fail to remember that this old and reliable house are offering rare bargains in all classes of

Fruit and Ornamental Trees, Shrubs, Vines, Roses and Hedge Plants

for the Spring of 1896, and invite personal inspection and correspondence.

Budded Apples, Standard and Dwarf Pears,

Plums, Cherries, Peaches, Quinces,

Honey Locust for Hedges,

Kilmarnock Willow, Maple in variety, Mountain Ash,

Camperdown Elm, American Elm, Cut Leaved Birch,

Linden, Evergreens, English and Black Walnut,

Kentucky Coffee Trees, Magnolias, Poplars.

Extra Sized Shrubs and Vines, Strong Budded Roses.

Berberry, Lilac, Hydrangea, American Ivy, Syringa, Wistaria, Deutzia, Honeysuckle, Weigela,

and a long list of other trees and plants, all well and carefully grown.

Holstein-Friesian Cattle, Carriage, Coach and Driving Horses, of the best breeding and quality, for sale at reasonable prices.

SMITHS & POWELL CO., SYRACUSE, N. Y.

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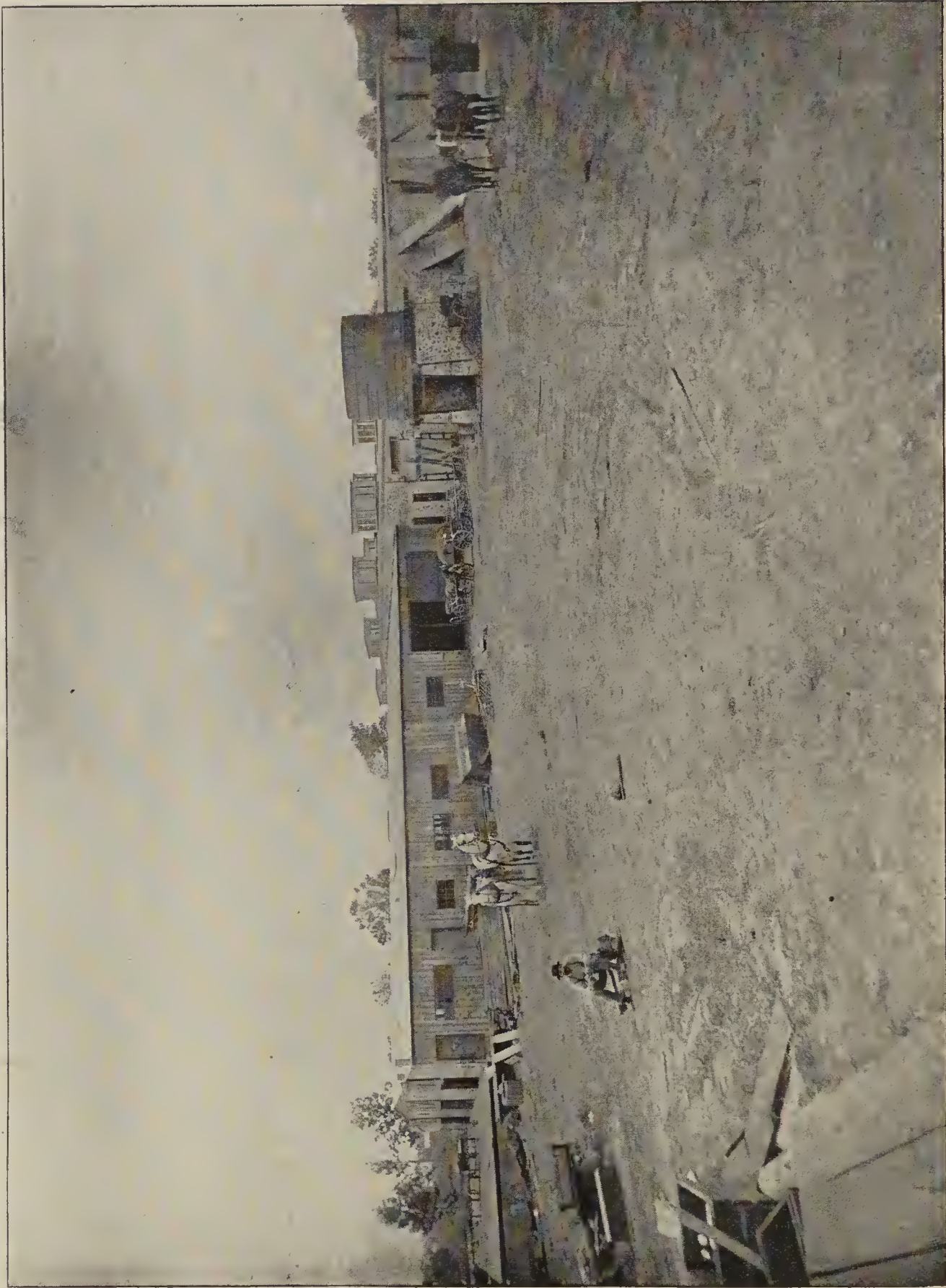
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NURSERY CELLAR OF BROWN BROTHERS CO.,
ROCHESTER N. Y.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. IV.

ROCHESTER, N. Y., JUNE, 1896.

No. 5.

SITUATION IN THE NORTHWEST.

LAKE CITY, Minn., May 9—J. Cole Doughty, Secretary Jewell Nursery Co.: "Trade was excessively dull throughout the winter and business was secured only by a persistent and vigorous effort but as soon as it began to warm up, orders began to come in very rapidly, and we cleaned out our stock much closer than we anticipated at the beginning of the packing season. Our spring season was characterized by very warm rains and high temperature, which necessarily rendered it very short, in consequence of which we have been compelled to decline considerable business and cancel a great many desirable orders. On the whole, our sales will aggregate fully as much as we expected.

"The retail trade is being greatly injured throughout the Northwest by the promiscuous circulation of wholesale prices by nurserymen. In addition to this, most of the country has been covered by model orchard fiends who destroy territory most effectually, and it takes a long time to recover. Many of these gangs are representing what have heretofore been considered reputable nurserymen. The outlook for the future is certainly not as encouraging as we could hope. The low prices of farm products, together with the cutting and slashing of nurserymen have produced a condition in the West that is far from pleasing to any firm which has large permanent investments. We are, however, in the swim and in it to stay. We hope to get our share of business with a reasonable margin of profit. Each year we are exercising greater care in growing and grading stock, are weeding out varieties that have proven to be failures and are going mighty slow on novelties. By persistent effort and keeping constantly at it, we trust to be able to secure a reasonable fall business.

"THE NATIONAL NURSERYMAN comes to us regularly, loaded with good things. We note particularly the remarks of Mr. Stringfellow in a recent number. We trust you will follow up his suggestions so far as practicable. If his practice is correct, the nurserymen ought to know it, as many trees injured in digging, that are now thrown away, could be utilized. But even in the event that his theory is just the right thing in practice, it will take a long time to educate the community up to it, as trees without roots are generally regarded with about the same disfavor as checks without signatures.

"I spoke of the practice of nurserymen sending out wholesale lists promiscuously, and I have a strong illustration of this. One party makes wholesale prices and solicits trade from the nurserymen on a postal card and at the bottom he tacks on the request, "Postmaster

please tack up!" Any nurseryman who would give that man an order, ought to be hung on one of his own trees. Them's my sentiments. We never send a wholesale price list to any man, except we *know* him to be a nurseryman or dealer, until we have received his references. We may lose some trade by this practice, but we certainly do not steal half the meat out of the other fellow's cocoanut. We leave a chance for somebody to make a fair bargain."

TIMELY SUGGESTIONS.

I notice in the columns of your paper various causes assigned for the reign of low prices in nursery stock which have prevailed in the past few seasons. It goes without proof that our stock, like all other commodities, is subject to the immutable laws of supply and demand; briefly stated—short stock, bull prices; surplus stock, bear prices. Now this is a general principle and one which no individual can correct, one must submit to it, as to the inevitable, but why each one in the business should do just all he can to aggravate the situation, it is difficult to account for except for the fact that the majority of tree growers have not been trained, and do not observe modern and approved business methods.

The nurserymen themselves are to blame for much of the present situation. Some have injured the business in one way and some in another and we are all suffering from the results, and the wholesale business has become a retail business at wholesale prices.

May we be pardoned for pointing out some things which look like errors in judgment on the part of our nurserymen. Excessive plantings should be avoided. We have known firms to plant 250,000 pear stocks in a single season, and follow it up with other large plantings when these same firms never sold before 10,000 standard pears. Others have planted 15,000 or 20,000 birches who never sold 500 birches in a season in their lives. The result invariably has been disaster to themselves and a permanent injury to all the producers of these commodities. One must be careful in the attempt to control the trade by growing an excess of anything. Do not forget that we have 6,000 growers for 70,000,000 people now, and that in the palmy days of the business we had but 500 growers to 50,000,000 people.

The growers of nursery stock are not as prudent in protecting retail prices as they should be. Other lines of business keep secret their trade prices and do not reveal them to consumers. The majority of nurserymen cannot find out the trade prices of cloths, hats, shoes or groceries, but it seems as if every planter of a dozen trees can prove

to you or your canvassers that apples are worth 4 cents each only. This has been brought about by two methods, either of which is subject to condemnation and neither has been very profitable to those who have perpetrated the injustice on the trade. I refer to the broadcast distribution of wholesale prices and to the advertising of cut prices in our current agricultural, horticultural and family papers.

This is why only about 2 per cent. of the canvassers for retail (consumers') orders can make a living out of their business. This is why the majority of retail sales are made on commission by a class of salesmen who spend part of their time at other business and who cannot, from the nature of the case, become well-posted and efficient salesmen in ours. Nurserymen owe a duty to canvassers, they have not been protected, and here again it is a fault of the growers themselves.

Again, we all know that a large quantity of a commodity in sight has a depressive effect on the market prices of that particular commodity and other collateral stocks. A surplus of corn means a low price not only for corn, but of oats, etc. The presence of 2,500,000 ounces of pig silver in the vaults at Washington, with no information as to what is to be done with it, keeps the price of silver down to cost of production.

Our growers are doing all they can to keep a big stock in sight. Can the effect on prices be different than it is, and will not low prices be the rule as long as advertisers proclaim as they do, in circulars and advertisements, that there are millions on millions of trees seeking a market?

If ten advertisers offer 10,000 hydrangeas each, does it not appear that if ten growers have 100,000 and I have 20,000 that I did not advertise, the prices must go down at once below cost of production.

Advertisers do themselves an injustice if they use large figures to catch the eye of consumers. If consumers alone were to see these big numbers the matter would be effective and possibly a benefit, but, ye advertisers of large surplus, remember that there are others who have these same things to sell, possibly more than you, and beware of the results.

Some of your readers will remember, years ago, in the councils of the American Association of Nurserymen the futile efforts of some of the larger buyers of the West to get reports on the quantity of trees, particularly pears and cherries ready for market and which were mostly controlled by the eastern growers, and at that time were mostly bought by the West. New York growers naturally failed to make full reports on quantities because they knew that large lots could be reported and that prices would naturally drop. For this same reason we have noticed that the western nurserymen who now grow the bulk of cherries in the United States, do not place on the records of the A. A. N., the quantities they have to offer.

Buyers are said to be sharper than sellers, but we are hopeful that the change above hinted at, together with a careful consideration of some of the foregoing comments, may have a tendency to brace up the depressed features of the nursery business.

A.

NURSERY CATALOGUES.

I am pleased to find that you give appreciative notice of the nursery catalogue of Samuel Moon, of Morrisville, Pa. It is the best that has come into my hands this year, and is particularly to be commended for a point which you do not touch. Mr. Moon has made an effort to bring his names up to date, and in conformity with the best authorities. He has done this with more success than have some others who profess to be immaculate. I live nearby Mr. Moon, and know his love and enthusiasm for his work, and can say that his stock is as interesting as his catalogue, and I visit it often. This being so, he will pardon me if I express a hope that he will give his catalogue another overhauling next year, and see his way to expurgate synonymy entirely. We, in this country, have no use for obsolete terms; we are not so conservative as are the dictionaries, and synonymy is not only misleading, but tiring, and a waste of labor and ink.

Laburnum should not be Cytisus; Sassafras should not be Laurus; Magnolia purpurea will scarcely stand. Prunus should precede Persica; Salisburia should be dropped entirely, so should Sorbus, and Abies Canadensis we are told won't do at all now-a-days. Pseudo Tsuga is also the polite thing for A. Douglasii, and Picea for A. polita. Then Picea Smithiana should be P. Morinda. Retinospora is now old-fashioned, and should only be found in the smallest of small type, until we are all educated to drop it out completely. Prunus must be written for all the plum and peach sections, and Diervilla, as Mr. Moon says, must take the full place of the other name. Then it is perfectly horrid to call a verbenaceous plant like Caryopteris, a Spirea.

Pavia also must be dropped, and parviflora must be substituted for macrostachya. Bignonia ought not to show its face—not even to the Moon catalogue. Pueraia Thunbergiana is longer to write and harder to remember, but more exact, we are told, than Dolichos. Passiflora-cœrulea isn't hardy, but P. incarnata is, and will make flowering growths every summer where Mr. Moon lives. I am not sure but some others of those from the Mexican vicinity might do so too if they were tried.

In perennials such names as Eulalia, Funkia, Hyacinthus, Imantophyllum and Tritoma must certainly be attended to, and give place respectively to Mischanthus, Hosta, Galtonia, Clivia, (a name that must have worried the priority apostles) and Kniphofia aloides. Then finally that handsome plate isn't Yucca gloriosa, but Yucca recurvifolia seemingly. Finally, as I pointed out to my friend a few days ago, Gordonia lasianthus is the "loblolly bay," not G. pubescens.

Now: don't any of you think I am carping at Mr. Moon, for I am not; I am simply making it easy for him to make his catalogue just about the most perfect issued in the United States. I wouldn't write this to you if I thought any of you would do a thing but chaff my friend into continuing his excellent work, and it might be consistent if you would do as well as he, before you chaff.

Earnestly I say to you that many catalogues are issued to-day which not only in their names, but in their descriptions of hardihood and so on, throw a doubt upon the knowledge and veracity of their authors, and many of those who doubt them do not take the trouble to have a square talk with you about it, but abuse you behind your backs, and not only withhold their orders, but never even trouble to look further than the first few bad errors.

There is no use for obsolete and synonymous names in catalogues where they can be got rid of. It is bad enough to have them sticking around the cells of one's brain, and botanists and nurserymen and florists cannot too soon help to clean them out. Nicholson's Dictionary is on most of your shelves, and Johnson's Gardener's Dictionary is sold by Macmillans for \$4.

Trenton, N. J.

JAMES MACPHERSON.

AMERICAN ASSOCIATION.

Following is the programme for the 21st annual meeting of the American Association of Nurserymen at the Sherman House, Chicago:

WEDNESDAY, JUNE 10.

OPENING SESSION, 11 O'CLOCK.

Every member will sign Membership Roll.

President's Address—Silas Wilson, Atlantic, Iowa.

Report of Treasurer—N. A. Whitney, Franklin Grove, Ill.

Election of Officers. Selection of Next Place of Meeting.

AFTERNOON SESSION, 2:30 O'CLOCK.

Appointment of Committees. Question Box.

"To Plant, or Not to Plant, That's the Question,"—Hon. N. H. Albaugh, Tadmor, Ohio.

"The Duty of the Nurseryman to the Fruit Grower,"—Hon. H. E. Van Deman.

THURSDAY, JUNE 11.

MORNING SESSION, 10 O'CLOCK.

"The Nursery Lands of New York State,"—Professor L. H. Bailey, Cornell University.

"Grapes,"—E. H. Pratt, of T. S. Hubbard Co., Fredonia, N. Y.

"Hardiness of Trees and Tree Seeds,"—Robert Douglas, Waukegan, Ill.

"Social Value of our Conventions,"—A. Willis, Ottawa, Kan.

AFTERNOON SESSION, 2 O'CLOCK.

"The Agency of Crossing and Hybridizing in the Improvement of the American Grape,"—G. W. Campbell, Delaware, Ohio.

Reports of Committees.

"All but the Corpse Furnished,"—J. Jenkins, Winona, Ohio.

"Necessity of Nurserymen Having Specimen Orchards,"—Charles A. Green, Rochester, N. Y.

An effort may be made to take a boat ride on the lake, in which case the programme will be very materially changed.

The Nurserymen's Mutual Protective Association annual meeting will be held Wednesday evening, June 10th, 1896.

The annual meeting of the American Nurserymen's Protective Association will be held Wednesday evening, June 10th, at 8 o'clock, in gentlemen's parlor of the Sherman House.

INFESTED NURSERY STOCK DESTROYED.

At the April meeting of the Washington Board of Horticulture at Tacoma, the secretary reported: "So far as reported the fruit trees shipped into this state have been free from insect pests except a shipment from the state of New York in which some of the stock was infested with the woolly aphis. All the infested stock was destroyed.

"There are 1,000 acres in the state of Washington devoted to the raising of nursery stock. As a rule the trees are very thrifty and in excellent condition for the planters of orchards. A greater care on the part of some of the nurserymen not to mix varieties will redound to the interest of the entire nurseries of the state."

Foreign Notes.

Leon Say, statesman and economist, is dead. He was president of the National Horticultural Society of France.

In Holland about 90,000 narcissus bulbs are needed to plant an acre, while of hyacinths 100,000, of tulips 115,000, and of crocuses 150,000 bulbs are needed for a similar area; this is, of course, for flowering bulbs.

There is promise of an abundant crop of most kinds of hardy fruit in Scotland. The unusually warm and dry summer of last year matured the growth of the trees which came to an early rest and did not seem to be materially influenced by the wet autumn.

Northern Spy apple stock is used in Australian nurseries upon which to graft, being practically immune from attacks by woolly aphis, according to statements made in the "Vigneron," of Sydney, New South Wales. The Winter Majetin is also used for this purpose but is not considered so good a stock as the Northern Spy.

The P. and O. Company's steamer Rome arrived at the Albert Dock, London, on May 2d, having on board 10,568 cases of apples from Hobart, 1,650 from Melbourne, and 120 from Adelaide. It is worthy of note that the improvement noticed in last year's consignments seems characteristic of this year's imports, some fine specimens of Ribstons and Pearmain's being on sale at prices which must certainly be remunerative; they are fetching twice as much money as could be obtained a few years since for the unsorted, irregular fruit, then thought good enough for the English market.

Sweet peas in America command far more attention than they do in England, says an American correspondent of the *Gardeners' Magazine*. Nearly every state has a special flower show given up to them, San Francisco, from its closeness to San José, the seat of the seed farms, heading the list. The flowers are great favorites with the ladies here; and American girls are far more exacting critics, from a floral point of view, than English ones. It is quite a pity from a business point of view, that the English lady cannot or will not be educated up to the standpoint of her American cousin. Flowers here are far more generally given and received than in England.

The currant crop in Greece has of late years been in excess of the world's demand, and consequently prices have been so low as scarcely to cover the cost of production. A report recently made by the British consul at Patras shows that a crisis has arisen in the currant industry, and to meet this the government brought in a bill last year requiring exporters to deposit in public stores fifteen per cent. in kind of the currants they intend to export, and these will be used by the government for wine or spirit production. While a currant crop of 130,000 tons, which is about the amount required for the world's consumption, will realize over two millions sterling, a crop of 70,000 tons will only produce a little over one million. Last year's crop is estimated at 150,000 tons, of which about 50,000 tons remained in Greece at the commencement of this year. Great Britain takes about half the total export and France about a fifth.

Among Growers and Dealers.

Charles J. Chism has been appointed postmaster at Brighton, N. Y.

The London red raspberry and the Ohmer blackberry are specialties with E. Y. Teas, of Irvington, Ind.

Peter McPhee has bought the establishment of the Framingham Nursery Co., at South Framingham, Mass.

Nurserymen who are looking for two-year cherry in large or small lots will be interested in learning that Gustav Klarner, Quincy, Ill., is offering such stock.

Forty-five years ago the business controlled by H. M. Simpson & Sons, Vincennes, Ind., was started. They offer special prices for early orders in ear lots on apple and cherry.

The agents in the United States and Canada for P. Schire & Sons, Ussy, France, are C. C. Abel & Co., New York City, who will mail advance lists on fruit tree stocks, upon application.

W. S. Little & Co., Rochester, call attention in another column to their stock of tree roses, hardy azaleas, rhododendrons, clematis, own root two-year roses and standard pear, plum and peach.

Colombe Brothers, Ussy, France, make a strong bid for patronage among all who are in need of French stocks. Their agent in this country is Frederick W. Kelsey, 145 Broadway, New York city.

Genuine Triumph peach stock is offered by John S. Barnhart, Denton, Md.. This season they propose to grow on contract June-budded trees of Triumph in any quantity, in grades from one to four feet.

The well-known firm, A. C. Griesa & Brother, Lawrence, Kan., has become the Lawrence Nursery Co. The members are: A. C. Griesa, C. W. Carman and T. E. Griesa. The business dates back to 1869.

One of the largest firms in Dansville, N. Y., is C. F. McNair & Co. These gentlemen offer for next fall and spring a choice assortment of apples, standard pears, dwarf pears and plums, besides other fruit trees.

It is announced that the well-known firm of H. C. Graves & Son of Lee's Summit, Mo., Sandwich, Ill., and Council Bluffs, Ia., has made an assignment, and that creditors' claims run from small amounts up to \$10,000.

John Charlton, Rochester, calls attention to the Madame Ed. Andre clematis. He claims the largest stock in the world of this sterling variety. On another page he makes a statement of interest to all who handle clematis.

C. H. Joosten, 193 Greenwich street, New York city, is taking orders for French fruit tree stocks grown and exported by Lenault Huet, Ussy, France, and for spineless gooseberries, introduced by Letellier & Son, Caen, France.

M. J. Henry, Mt. Pleasant, Vancouver, B. C., writes: "I have had better trade in nursery stock than ever before; but it is the same as in the East, cut prices to secure orders by those who had an overstock of off varieties not suitable for this climate."

Irving Rouse, Rochester, said a few days ago that the drouth was seriously affecting the stocks set out this season, and that this was the general complaint in the East. A heavy rain last week may have saved many that were upon the point of dying.

Joseph M. Neil, La Porte, Ind., says: "The prospects for a heavy crop of fruit in this section are very flattering. Horticultural societies are being organized and great interest is being manifested in fruit growing. I anticipate a heavy business in nursery products this fall."

Sprayers will probably soon become common as nursery tools. The claim is made that the Twin Comet and Little Giant sprinklers, made by the E. Stebbins Mfg. Co., Springfield, Mass., will sprinkle an area four times greater than any others. A combined sprinkler and sprayer is suggested.

At the Chicago convention on June 10th, Allen L. Wood, of Rochester, will have on exhibition an Eastman enlargement of a photograph showing a single branch of the Pearl gooseberry. The photograph is 24x20 inches and presents a handsome and imposing feature. The prolific quality of the Pearl gooseberry is shown more plainly than by words.

Specialties offered by such a nursery firm as Ellwanger & Barry are sure to attract attention, for they must be of undoubted merit and fine

specimens of their class. This firm offers, in addition to their usual large and complete collections of general nursery stock, currants and gooseberries of several desirable kinds, the new Superlative red raspberry, Eleagnus Longipes, and the new white hybrid perpetual rose Marchioness of Londonderry.

W. M. Peters' Sons, Wesley, Md., write: "Trade this spring was very good, equal to the spring of 1895. Collections are a little slow, but we anticipate a favorable season ahead. We have increased our plant in general line all through. We suppose our peach seedlings to bud this season will aggregate over one million, all on fresh land never planted to any kind of stock before. We have thirty acres planted to peach seed alone and the plants have come up nicely."

As there are in the Fort Valley, Ga., section several hundred thousand young trees fruiting this year that gave no fruit last season, it is safe to assume at the present that the prospective crop of 1896 as a whole will be at least 50 per cent. greater than in 1895, says J. H. Hale. The season, now middle of April, is fully ten days ahead of last year; and as it has been on the whole rather a cold spring, the lead over last year is likely to be maintained up to the marketing season; so that not counting the extra early peaches of the Alexander type, good Georgia peaches ought to be plenty in market from the 15th to 20th of June.

We must disagree with Professor Stringfellow, in regard to close root pruning in planting permanently, says George J. Kellogg, Janesville, Wis., in *Our Horticultural Visitor*. While it is a good thing for the small stock transplanted in the nursery, that lives, throwing out a better set of roots for the after planting, it is not the best way to insure success in orchard planting. The success of a few peach men in planting peach whips when even cuttings will almost grow is no criterion for northern orchardists. Why do forest trees need such careful handling that have no fibrous roots? Why transplant evergreens if you don't need roots? We had another professor before our nurserymen's convention in Chicago a few years ago advocate this close pruning, but practical orchardists will not adopt it either in theory or practice.

Herman Berkhan's smiling countenance illuminated the offices of prominent nurserymen in Rochester and vicinity during the closing days of May. He is on his annual tour in the interest of his well-known firm, Levavasseur & Sons, Ussy and Orleans, France. His popularity equals that of the firm he represents. His jovial manner, sturdy enterprise, indefatigable effort and well-placed confidence in the stock he has to sell, win him easy orders for large amounts at all the nursery centers. He is on his way to Chicago where he will be looked for as he is all along the road, and where he will fill an important niche in the social and business features of the annual meeting. Eastern firms that he has visited are laughing yet at the stories he left with them and which his many friends in the West are anticipating. If one would see a shining example of what it is to look continually upon the brightest side of life he should lose no time in seeking the acquaintance of Herman Berkhan of 39 Cortland Street, New York.

Brown Brothers Co., Rochester, N. Y., have moved into new and commodious offices in the Granite building, one of the handsome commercial buildings for which the Flower City is becoming noted. Without doubt there are no finer nursery offices in the country. The latest ideas have been employed in the arrangement of the general and private offices. Every labor-saving device, from the phonograph down is in use in these offices. Private apartments for Mr. Charles Brown and Mr. Robert Brown connect directly with the general offices which present a busy scene, peopled as they are with a large force of young ladies and gentlemen who have become expert in handling the large and increasing business of this establishment. It is a pleasure to note the prosperity which is attending the conscientious efforts of the young men who have built up this business. Adjoining the offices of Brown Brothers Co. are those of the Perry Nursery Co. and the Herrick Seed Co. An interior view of this series of offices would prove that there is much to be hoped for in the nursery business yet.

A GREAT HELP TO THE BUSINESS.

EDWARD BACON, DANSVILLE, N. Y.—"Enclosed find \$1 for subscription to your valuable journal and please excuse delay in sending same. I appreciate your paper very much and think it a great help to the business."

GEORGE L. TABER.

AT GENEVA, NEB.

George L. Taber, the well-known nurseryman and horticulturist of Florida, is a native of Maine, having been born in the town of Vassalboro, in 1854. As a young man he went to Chicago, where he remained for a number of years. He went from Chicago to Florida in 1882, and has since been a resident of the latter state. He located at Glen St. Mary, in Baker county, in the northern part of the state, a little north of the latitude of New Orleans, finding there, in the valley of the Little St. Mary's river, local conditions of soil and climate peculiarly favorable to the growth and propagation of varieties of fruits adapted to a wide range of territory embracing the Lower South, as well as more distant portions of the country.

At the time Mr. Taber settled in Florida, the vast region, beginning with Southern Georgia and that portion of Florida lying north of the orange belt, and extending westward along the gulf and including Coastwise Texas, was a new horticultural field. In the development of the horticulture of this gulf region, which has now attained commercial importance in the production of pears, peaches, and other fruits, Mr. Taber took a leading part. In connection with the planting of orchards and nurseries, he began at once, upon locating in his new home, extensive comparative tests with varieties of fruits new and old, a line of experiment which he has since continued and which now forms a prominent feature of his business; as a result, a number of new varieties of special merit have been originated or introduced by him, and he has determined the value for this region of many varieties well known in other parts of the country.

Mr. Taber is vice-president of the Florida State Horticultural Society, which he helped to organize in 1888, and which has now become one of the largest and most influential bodies of the kind in the country. He also represents Florida on the general fruit committee of the American Pomological Society, and is vice-president for Florida of the American Association of Nurserymen.

During the past fifteen years Mr. Taber's nursery business has grown to be one of the most extensive in the South. He ships large quantities of stock annually, not only to Texas, Florida, and intervening states, but to all parts of the country. His last annual catalogue would be a credit to any state. It represents the standard of new and old varieties which are now most in demand.



GEORGE L. TABER.

GENEVA, Neb., May 1.—Youngers & Co., Geneva Nurseries: "Trade, with us, has been very good the present spring. At the present time we are unable to give an estimate of the amount, but believe it to be equal to that of last year. About the 10th of April it commenced raining all over Nebraska and from that time on trade picked up very fast.

"The demand this year has been principally for the better grade of goods, although there has been a fair sale on off grades. The large planting has been in cherries, apples and plums. Sales in small fruits of all sorts have been slower than ordinary, particularly so in grapes. There has also been a heavy falling off in the planting of pear trees. Ornamentals of all sorts have sold slowly,

excepting the large size of shade trees; these have been in good demand and prices have ruled fair.

"We are certain of one thing: the quantity of goods handled has been in excess of last year, but the prices have ruled considerably lower, consequently the amount in dollars and cents will not very much exceed that of last year.

"There is at the present time a large quantity of stock in the hands of nurserymen in the West to go to the brush pile. This consists very largely of pear and cherry trees, the better grades of apple trees being very well sold out.

"The outlook for the future is better than it has been for the past five years. Everything in the nursery is growing very rapidly and the ground is thoroughly saturated with water. Western nurserymen will take new courage."

Several peach growers in the Michigan fruit belt report a decided decrease of the yellows in orchards that have been sprayed thoroughly with copper sulphate during the past two years.

A California exchange, referring to the fact that the Michigan fruit growers have established a telephone line among themselves, says that Californians should remember that while they progress, the rest of the fruit growing world is not necessarily asleep.

Californians who so complacently allege that our Eastern friends would always go fruit-hungry were it not for our prolific orchards, may be interested in the statement of the Fruit Growers' Association of Grand Rapids, Mich., that last year the fruit shipments from Western Michigan were 4,575 carloads of 400 bushels each.—*California Fruit Grower*.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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THE NATIONAL NURSERYMAN PUBLISHING CO.,

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OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

SUBSCRIPTION RATES.

One year, in advance,	-	-	-	-	-	\$1.00
Six Months,	-	-	-	-	-	.75
Foreign Subscriptions, in advance,	-	-	-	-	-	1.50
Six Months,	"	"	-	-	-	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements.

 Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Entered in the Post Office at Rochester, as second-class matter.

ROCHESTER, N. Y., JUNE, 1896.

THE CONVENTION OF 1897.

At the annual meeting of the American Association of Nurserymen in Chicago this month, the place for the convention of 1897 will be decided upon. There is a desire among many members of the association to adhere to the plan of holding alternate annual meetings in the East. While it is admitted that the central location of Chicago is a strong argument in its favor as a general place of rendezvous, there is still force in the suggestion that many western as well as most eastern members would like to meet, occasionally at least, in one of the large cities of the East.

It has occurred to us that Boston would be a desirable meeting place for the convention of 1897. So far as the records of the American Association have been compiled they show that the organization has never met in the capital of the Bay State. The association has met eight times in Chicago, and once in the following cities: Rochester, St. Louis, Washington, Detroit, New York, Minneapolis, Atlanta, Niagara Falls and Indianapolis. Four times it has met in an eastern city and once in the South, and the convention this month is the twenty-first.

In response to a letter suggesting Boston or Washington as the place of meeting for 1897, with a preference for Boston, we received these replies:

S. D. Willard, Geneva, N. Y.—“Should favor Boston as place of next meeting.”

George A. Sweet, Dansville, N. Y.—“I think your suggestion of holding the next meeting of the American

Association of Nurserymen at Boston is both timely and wise, and I concur heartily in that selection.”

Ellwanger & Barry, Rochester, N. Y.—“We consider Boston a very desirable place to hold the meeting of the American Association.”

N. H. Albaugh, Tadmor, O.—“I think Boston too far East. But few nurserymen thereabouts. The best session we ever had East was at Niagara Falls. That place will bring a larger crowd than either Boston or Washington City in my opinion.”

R. G. Chase Co., Geneva, N. Y.—“We consider Boston as the most desirable place for the American Nurserymen's Association meeting for 1897, and we trust the majority of the members will agree on that city.”

J. H. Hale, South Glastonbury, Conn.: “In relation to the meeting of Nurserymen's Association for '97, as between Boston and Washington, as a New Englander I ought to be loyal to the Hub, and to all nurserymen interested in the highest types of amateur productions of fruit and ornamental plants. Probably more is to be seen about Boston than in any other section of the United States; but for central point of meeting and one easy of access to the great body of our members, I should certainly consider Washington preferable.”

Hoopes, Bro. & Thomas, West Chester, Pa.: “We should certainly be in favor of Boston, which is a good place for attending such conventions at the season of the year chosen for our meeting. While Washington is one of the most beautiful cities in the world, it is most too warm at any time after the middle of May until autumn for such meetings.

The Storrs & Harrison Co., Painesville, O.: “It makes but little difference to us where the meeting will be held another year. We probably shall be represented, but think very few western men would attend meetings held as far east as Boston. The expense would be heavy, and we do not believe you would get much of a representation from the West.”

Thomas B. Meehan, Germantown, Phila.: “As a choice between Boston or Washington as the place for holding the next meeting of the American Association of Nurserymen, I think I would advocate Boston. We have had a meeting in Washington, but I do not recollect that we ever held a meeting in Boston.”

FRUIT GROWERS' UNION.

There was an important meeting in Chicago on May 20th and 21st at the Palmer house. Fruit growers in response to an invitation sent out by John D. Cunningham, of Georgia, and others, formed the American Fruit Growers' Union which will be the central organization of the state unions. Each state will be entitled to one vice-president, who may also represent the state in the central body.

Headquarters will be established in Chicago, as the central point of the fruit shippers of the country. A

manager will be stationed there, who will watch the markets and send daily bulletins of the prices and supply and demand to every shipping point throughout the country. This manager will also control the funds of the union, which will be deposited in the First National Bank of Chicago. Annual meetings will be held at some central point for the election of officers and making of rules and regulations to govern the union.

The officers elected for the first year are: John D. Cunningham, president; Willis Brown, secretary; executive committee, John D. Cunningham, Willis Brown, E. R. Jennette, G. H. Fay, C. W. Benson, J. F. Chamblin, and W. A. Gardner. A vice-president was elected for each state in the Union, and one for British Columbia.

The next general meeting will be held in Chicago the second Tuesday in May, 1897.

IMPROVEMENT OF CATALOGUES.

The suggestions of James MacPherson in another column regarding names of varieties in catalogues are timely and practical. There is not a nurseryman who will not admit that to secure the results outlined would be an advantage. Mr. MacPherson has clearly pointed out the road to improvement by reference to a catalogue which is above the average in respect to attention to details of preparation.

Mr. MacPherson emphasizes his desire to see catalogues brought as nearly up to date as possible by authorizing us to say that he will be pleased to revise the names (so far as determined) of any ornamental catalogues sent to him in duplicate, and accompanied by any remittance the sender can afford.

The genuine interest thus manifested will, we trust, be rewarded by the acceptance upon the part of a large number of so generous an offer.

SAME TROUBLE IN NEW ZEALAND.

The complaint about low prices on nursery stock extends to the New Zealand islands. D. Hay & Son, Auckland, make the following statement to their patrons:

"We frequently receive letters, the writers stating they have written to other nurserymen and growers, and intend to place their orders where they can buy the cheapest. Just a few words about cheap trees. The prices some trees are offered at practically exclude the possibility of their being first-class. No experienced grower will recommend you to buy cheap trees simply because they are cheap, or buy auction stock, but 'Go to an established nurseryman, who has a reputation at stake, and will not in his own interests palm off a worthless tree.' A few pence per tree extra at first, is pounds saved in the long run. If you buy an ill-formed scrubby tree, it remains a scrubber all its life. A good tree takes up no more room than a bad one; by all means plant the good! 'Do sensible men buy the cheapest horse, the cheapest clothes, employ the cheapest lawyer, or the cheapest doctor, be-

cause they are cheap?' 'No!' The same applies to cheap trees. It isn't nature! Buy the best obtainable to ensure the most satisfactory results. 'With all your getting, get the best!' Trees that have been properly worked, nurtured, and cared for, well taken up with all their roots, and selected by throwing out any that are poor roots, crooked in the stem, or stunted in growth, entail considerable outlay, and are well worth the price we ask."

HORTICULTURAL LAW SUIT.

A law suit of much importance to horticulturists in Minnesota, and probably in the whole country, has lately been begun in New Ulm, Minn. It involves a question as to the identity of a seedling being propagated by C. W. H. Heideman, of New Ulm, with one owned and originated by H. Knudson, of Springfield, a neighboring town. Mr. Knudson claims that the seedling Mr. Heideman is propagating is in reality his (Knudson's) seedling, scions from which he gave Mr. Heideman some years before—which latter fact Mr. Heideman admits, but claims they did not live.

The suit is for the purpose of securing a permanent injunction against Mr. Heideman to prevent his selling any trees or scions grown from this particular seedling. C. W. Sampson, of Eureka, is interested with Mr. Knudson in this suit, having become a part owner of stock to be grown from the original tree.

A temporary injunction has been secured by the plaintiffs by presenting affidavits from Prof. S. B. Green and Clarence Wedge showing in substance the improbability that two plants differing so widely as in this case from the original species and originated by different persons working independently should be so apparently identical.

The trial and decision of this case will be looked for with much interest. The result will depend very largely on expert testimony as to the identity of the trees and the improbability referred to in the above affidavits. The case also involves a very important question as to the rights of originators of new kinds of fruit.

The plaintiff's attorneys state that there is no statute, either of the United States or of the state of Minnesota, protecting the propagator of a new variety of fruit, and while they are of the opinion that the common law can be invoked to protect such a person, it seems strange that such rights are not clearly defined and protected by statute. The discovery and propagation of new hardy varieties of fruit in Minnesota is certainly of as much importance as the invention of some new machine, and our legislature should be called upon to pass a law upon the subject which will give protection in such matters, similar to the protection given by trade marks and patent laws.

The seedling referred to above is the new hybrid sand cherry of Mr. Knudson, a very interesting and, probably, valuable cross between the Miner plum and the sand cherry.—*Minnesota Horticulturist*.

A MAMMOTH NURSERY CELLAR.

VISIT TO THE BRIGHTON GROUNDS OF THE BROWN
BROTHERS CO., ROCHESTER, N. Y.

Editor of THE NATIONAL NURSERYMAN:

Knowing that your readers are interested in all that concerns the progress of the science of horticulture, I have transcribed for your use some notes made on the occasion of a recent visit to the nursery of the Brown Brothers' Company in Brighton, and which relate chiefly to their large frost proof-cellar.

The grounds occupy a high situation adjoining Brighton village, and comprise seventy acres. Upon them were built, last year, the storage cellar, two large packing houses, work shop, label and moss buildings, a modern tenant house and a large barn. It is here and in the adjoining town of Irondequoit that the company's stock is grown on this side of Lake Ontario, their large Canadian nurseries being located at Ridgeville, near St. Catharine's.

The Brighton cellar is a stone structure 214 feet long, 80 feet wide and with an average height of 18 feet. Its walls are two feet thick, on a stone foundation four feet below the surface of the ground, and four feet thick. There are both inner and outer walls, by which method of construction an air space is formed all around the building. On either side in the center are huge entrance doors, placed directly opposite each other. Through one of these the stock is drawn in the late fall, the other opening into an immense packing house, where the stock is boxed. The roof of the cellar is supported by fifty-six oak posts which rest upon brick and stone piers. Pure air and abundance of light have been provided for by ten box ventilators in the roof, each about 6 x 10 feet. Water is brought to the cellar from a tank of 200 barrels capacity which is supplied by a wind-mill located on the bank of a convenient stream, so that stock may readily be sprinkled whenever necessary. Quite a respectable train-load of moss is required annually for the firm's business. The capacity of the cellar is over one million trees and shrubs. Last winter there was one pile of 36,000 dwarf pears alone. At one end of the building are numerous rows of racks for the reception of all small stock.

The large building connecting with the cellar opens upon a platform 100 x 30 feet in size, where the stock is finally brought after being packed. Here the heavy boxes are weighed, then transferred to the waiting wagons for removal to the various freight houses. The platform is just enough higher than the wagons to permit of loading directly from the trucks. It goes without saying that the saving of time and labor thus affected is well appreciated by the employees of the shipping department.

So perfectly frost proof is this storage cellar and so properly ventilated by its system of ventilators that stock is perfectly free during the severest weather from any trace of frost. The cellar was thoroughly tested last winter when the thermometer outside frequently ran 15 degrees below zero, and at no time was it below 38 degrees above zero in the cellar.

From the same perfect system of ventilation and from the manner of the construction of cellar, so far no trace of mildew to any extent had been discovered on the stock. All practical nurserymen will appreciate this fact, which I mention because the trouble in most storage cellars has been mildew.

As a large quantity of each variety of stock ordinarily handled by nurserymen is corded alphabetically in the cellar each fall, in such manner that each variety can be

reached without interference with other sorts; and as the packing facilities are amply sufficient, this company can fill its retail and wholesale orders in the spring long in advance of other houses without these facilities.

Another but no less important point is this; that from the time the stock is put into this cellar in the fall until it is taken out of the box at destination it is constantly under cover, and not for a moment exposed, while in the hands of this company, to the elements. Nurserymen desiring early spring shipments will appreciate this, as in many instances long delays occur in the spring of the year except where cellars and packing houses similar to these described are used. Another point concerning spring shipments is that the company do all their shipping from Brighton, and consequently can make quicker time than if shipments were obliged to go through the Rochester freight houses where there is more to handle.

Mr. M. J. Franks, the company's efficient foreman, accompanied me about the place, and to him I am indebted for the information gathered. One of the most interesting features of my visit was the knowledge gained as to the *modus operandi* of filling an order under the system in vogue here. I yield to the temptation to describe it briefly, for the benefit of nurserymen who are on the lookout for "pointers."

An estimate having been made in the early fall for both wholesale and retail of the probable spring sales of each variety, stock amounting to three-fourths of the estimate is stocked or corded in the cellar with aisles between so that all the different varieties may be easily reached. A section the entire width in centre of the cellar running between two large centre entrances, above described, and 50 feet in breadth is left free for running stakes which are driven at intervals, forming spaces alphabetically arranged and which, when orders are being shipped, are kept filled by men who carry trees from the corded stock reached by the general aisles. Certain small kinds are not corded up, but are heeled in in sand in another section of the cellar. Tags are given out to the runners by a man who stands in the entrance between the cellar and the packing-house.

The runners get the trees called for and carry them into drop stakes driven just outside the cellar in the packing-house. Here they are checked and passed over to men who tie them in baling machines, whence they go to the sorters. The sorting, by the way, is done both by the name of sale and by the number on the tags, each sale having its separate number, a method by which mistakes are not liable to occur. The bundles are then put in bins and counted as placed. The number of large and of small bundles is shown on a red tag which came attached to each lot of tags for the various sales, the small stock having been run out a little in advance at one end of the cellar and put in crates in a separate packing-room, 30 x 80 feet. These crates are put on low vehicles, known as Farmers' Handy Wagons, and drawn into the principal packing-house, where small meets large, first going into bins and thence to boxes the final packing being done on a level plank floor, 30 x 100, under cover. The continuation of this floor forms the large outside platform.

The entire system of packing has been so thoughtfully planned that the loss of time and stock is reduced to a minimum, and the firm packing floor and platform enable two or three men to carry the heaviest loaded box upon an ordinary railway hand truck to the scales and thence to the wagon.

Mr. Franks informed me that the company is gradually increasing its list of sorts, and besides its large general

line heretofore grown, an extra large variety of ornamental trees and shrubs has been set out this season.

It is proper that I should make an allusion to the company's nursery in Canada, as no doubt many are not familiar with the fact that they can always obtain most desirable selections therefrom. A large stock is constantly maintained. The T. H. & B. railway desiring to obtain the large freight shipments of this firm in Canada built a line directly into their grounds from their main road, four miles distant, thus giving this company the best shipping facilities in Canada. A cellar similar to that in Brighton, but not quite as large, has been erected in the Canadian nursery, and I understand that our over-the-lake neighbors enjoy equal advantages with their American cousins in their dealings with the Brown Brothers Company.

Since writing the foregoing I have called at the offices of the company, which occupy several pleasant rooms in the Granite Building. Here I learned that the business of the Brown Brothers' Company was established in January, 1885, the company having been incorporated in 1890. Branch offices are maintained in Chicago and Toronto. The present officers are: President, Charles J. Brown; treasurer, Robert C. Brown; secretary, Edward C. Morris. While here I saw several photographs of the nursery at Brighton, one of which showing the root-cellar, packing-house and platform, forms the frontispiece in this issue of your journal.

QUINCE.

Obituary.

Andrew S. Fuller, one of the most prominent horticulturists of the country, died May 4th at his home in Ridgeway, N. J. Mr. Fuller was born in Utica, N. Y., on August 3, 1828. He learned the carpenter's trade and became particularly skillful in the construction of green-houses. At 18 years of age he removed with his father to Milwaukee where he collected a great variety of plants and attracted the attention of William Prince, of Flushing, L. I., practically the first independent nurseryman in America, by whom Mr. Fuller was employed.

In 1857, says the *American Agriculturist*, Mr. Fuller removed to Brooklyn, N. Y., and engaged in grape and small fruit culture, which were then in their infancy. He originated a number of new varieties which at that time were considered the best yet produced, and made him renowned in his profession far and near. It was at this time that he commenced his literary career by contributing regularly to the *American Agriculturist*, *Weekly Tribune* and other periodicals. For 26 years he was agricultural editor of the *New York Weekly Sun*. His first work was "The Strawberry Culturist," which was followed by "The Small Fruit Culturist," "The Grape Culturist," "Practical Forestry," "Propagation of Plants," and lastly "The Nut Culturist," which is already in type and on the presses, to be published within a few weeks by the Orange Judd Co., the publishers of all his previous works.

Few books have ever made so great a sensation among horticulturists as his "Small Fruit Culturist," which was the first work on small fruits that had ever been published, and it was translated into several foreign languages. In fact, it was largely through the instrumentality of this book that small fruit culture has developed and extended as it has. Although several books on grapes had been published before his "Grape Culturist," none have Americanized grape culture as much as this one. How extensive the demand for it has been will be seen by the fact that, two years ago, when a new edition was required, the plates were so much worn that Mr. Fuller preferred to revise and re-write the entire work. Proud as any man might be of either of his books, the preparation of his "Nut Culturist" interested him more deeply than any of his previous works. For ten years he collected material for it, and his interest in his work never abated for a moment during all that time. As he expressed it, this work was to be his monument.

In Nursery Rows.

Which is correct, scion or cion? Maplewood.

The Standard dictionary recognizes only scion and declares that cion and cien are obsolete. The word is from the French, scier, to cut.

What grapes are unfruitful when planted by themselves? R. M. G.

Wilder, Brighton, Massasoit, Black Eagle, Emmelan, Requa, Essex, Barry, Herbert, Royce's No. 5, Salem, Gertner and Amalia are classed as self sterile.

How may I determine the number of trees or seedlings to set per acre? J. C. M.

Multiply distances in feet at which trees or seedlings are to stand apart and divide 43,560 by the product. Thus, when trees are to be planted 16 feet x 20 feet apart, 136 per acre will be needed.

How many kinds of apples are grown and marketed in America and how are they distributed? T. C.

Downing's list complete and revised to 1872 contained 1856 varieties of which 1099 were American and 585 foreign, and the origin of 172 was unknown. Professor Bailey has prepared an inventory of American apples (1892) which comprises 878 entries. It is a record giving the name which is in commercial use and the section where the variety is most sold in each case. The whole number sold in Ontario and eastward is 97; in New England, 192; New York, New Jersey and Pennsylvania, 274; Northern Central states, 248; Southern Central states, 275; South Atlantic states, 275; Gulf states, 149; Northwest, 62; Central Mississippi valley, 381; Texas region, 51; plains, 94; Pacific region, 137.

Describe method of propagating the gooseberry. Western.

Seeds for the raising of new varieties, says Professor Bailey, should be sown as soon as well cured in loamy or sandy soil; or they may be stratified and sown together with the sand in the spring. Cuttings six to eight inches long, of the mature wood, inserted two-thirds their length, usually grow readily, especially if taken in August or September and stored during winter in the same way as currant cuttings. Single-eye cuttings may be used for rare kinds. Stronger plants are usually obtained by layers, and the English varieties are nearly always layered in this country. Mound-layering is usually employed, the English varieties being allowed to remain in layerage two years, but the American varieties only one. Layered plants are usually set in nursery rows for a year after removal from the stools. Green layering during summer is usually practiced for new or rare varieties. Strong plants may also be procured by tip-layering, as in the black raspberry. If it is desired to train the weaker gooseberries in tree form, they may be grafted upon the stronger growing varieties.

Please give notes on budding cherry, pear, plum and peach, care of buds, etc.; also budding apple, time and care of budding scions. G. T. K.

Cherries are generally worked on Mazzard stocks. All varieties are readily worked upon it. When dwarf trees are desired the Mahaleb is used as a stock. This stock, which is imported, is adapted to heavy clay soils. *Prunus Pennsylvania* and *Prunus pumila* have been used to some extent. The former is the common wild red, pin or bird cherry; the latter the dwarf or sand cherry. Cherry stocks are worked both by budding or grafting. Budding is the common method. The stocks should be in condition to work the season they are transplanted, the second summer from the seed. Any that are too small for working may be allowed to stand until the following year. In the West, where great hardiness is required, the varieties are crown-grafted on Mazzard stocks in winter. Yearling stocks are used and the scions are from six to ten inches long. When planted, only the top bud should be left above the ground. The scions produce trees on their own roots.

The budding season for pears usually begins late in July or early in August in the North. If the stocks are small they may stand over winter and be budded the second year. Pear trees do not succeed well when root grafted, except when a long scion is used for the purpose of securing own-rooted trees. Dormant buds of the pear may be used

upon large stocks early in spring, as upon the apple, and buds may be kept upon ice for use in early summer. Pears are dwarfed by budding them upon the quince. The Angers quince is the best stock. The pear can also be grown upon the apple, thorn and Mountain ash.

Plums are worked in various ways, but ordinary shield-budding is usually employed in late summer or early fall, as for peaches and cherries. In the North and East the common plum is usually worked upon stocks of the same species. The Horse plum is a common stock. St. Julien and Black Damas are French stocks in common use. The Myrobolan is much used in California for standards, but in the East it makes dwarf trees. Plums are sometimes worked upon peach, almond and apricot stocks, according to locality. Japanese plums are worked upon peach, common plum or natives, preferably Marianna. Prunus Simoni works upon peach, common plum, Myrobolan and Marianna.

The peach is perhaps the easiest to propagate of all northern fruit trees. Peach trees are always shield-budded. Grafting can be done, but as budding is so easily performed, there is no occasion for it. The peach shoots are so pithy that in making scions it is well to leave a portion of the old wood upon the lower end to give the scion strength. Peaches are nearly always worked upon peaches in this country. Plums are occasionally employed for damp and strong soils. Myrobolan is sometimes used, but it cannot be recommended. All plums dwarf the peach more or less. The hard-shell almond is a good stock for very light and dry soils. The Peen-to and similar peaches are worked upon common peach stocks.

Apple stocks are either grafted or budded. Root-grafting is the most common, especially in the West where long scions are used in order to secure own-rooted trees. Budding is gaining in favor eastward and southward. It is performed during August and early September in the northern states, or may be begun on strong stocks in July by using buds which have been kept on ice. Stocks should be strong enough to be budded the year they are transplanted. Stocks which cannot be worked until the second year are unprofitable.

Recent Publications.

An attractive feature of the *Gardeners' Magazine* of London is the half-tone supplement describing one of the English mansions, with views of the spacious grounds.

The twenty-seventh annual report of the Fruit Growers' Association of Toronto, has been issued. In it is a large amount of interesting information concerning the horticultural industry in the Dominion. Murray Pettit, of Winona, is president; W. E. Wellington, of Toronto, vice-president, and L. Woolverton, of Grimsby, is secretary.

W. C. Fitzsimmons has retired from the editorial department of the *California Fruit Grower*. Brainerd N. Rowley is editor and publisher. The journal has introduced two valuable new departments, "Horticulture," which is in the charge of Leonard Coates, the well-known nurseryman of Napa, Cal., and "Viticulture," in the charge of George Husmann, author of "American Grape Growing and Wine Making."

In a letter to us Professor Van Deman expresses a little dissatisfaction with what we said in our last issue of the book on "Nut Culture." This is what he says: "You have done me a little more than justice in what you recently said about my connection with the preparation of the book on 'Nut Culture in the United States.' My faithful clerk, W. P. Corsa, did the greater part of the writing of the text, and Assistant Pomologist W. A. Taylor did considerable work on it, while I did much less of the detail work than either. However, it was done after my plan and under my personal direction almost to completion before my term of office ceased."

From the south seas, 12,000 miles away, comes the catalogue of D. Hay & Son's Montpelier Nurseries, at Auckland, New Zealand. It is dated April 1, 1896, and the proprietors say: "Anticipating the busy planting season of the winter of 1896, we take pleasure in tendering you our first 'fall' catalogue and solicit your careful perusal of its pages. We have designated this a fall catalogue for want of a better term, and although it is a new name in this country yet it is self-explaining. Briefly, it means that any item enumerated in these pages can be ordered shipped, and planted during the next few months. But

this issue is also a complete novelty list, and contains the largest collection of new varieties of fruit-bearing plants and flowers that has ever been offered by a single firm in the history of the nursery business in these colonies. Japanese plums have by their startling merit already made our name famous, but we hail the advent of our latest novelties 'Wickson,' 'Giant,' 'Gold,' 'Splendor,' and 'Gold Dust,' as the beginning of an era more remarkable and triumphant than even that which records the achievements of 'Burbank,' 'Botan,' 'Satsuma,' and 'Fertility.'" These nurseries were established in 1855 and are the most prominent in the Orient.

A new edition of "American Grape Growing and Wine Making" by George Husmann, has been issued. So great have been the improvements in the way of new varieties in pruning and training, in marketing and in combating insects and fungi injurious to the grape, that after a period of barely a dozen years, since the last edition of this work appeared, it was found necessary entirely to revise and largely rewrite it in order to keep abreast with the times. This new edition is practically almost an entirely new work. The complete management of the grape in the garden as well as in the most extensive vineyards, from the planting of the vine to the harvesting of the fruit, is given in detail, according to what are now considered the best methods. As the vast extent of our country and its varying conditions of soil and climate make it impossible to give directions suitable for all sections, the author has called to his aid the most prominent authorities and most experienced vineyardists in all the various grape districts of the United States. The second part of the work is entirely devoted to these locality reports, which are of inestimable value to the grape growers living within the respective areas. The chapters on wine making form a complete manual in themselves, describing all the various details of this steadily increasing industry. As the author is one of the most experienced wine makers in America and a recognized authority on the subject, this part alone makes the volume indispensable to all engaged in this industry. In order to make the work national in its scope, a considerable part is devoted to grape growing and wine making in California, a subject of which the author has made a specialty for the past 15 years. \$1.50. New York: THE ORANGE JUDD CO.

One of the most valuable handbooks which the nurseryman, florist or seedsman can possess is "The American Florist Company's Directory and Reference Book." The edition for 1896 is now ready. Within its 335 pages is contained a large amount of information of practical value. The new edition is complete in its many details. The principal feature is the trade list of nurserymen, florists and seedsmen of the United States and Canada, which occupies 115 pages in double column. Concerning this list the publishers say: "We have spared no labor and expense to secure and promptly enter in our list all the changes that have occurred since the compilation of our last edition. And to this end we make daily notes of changes as they occur between the issues of our book. We have also secured entire new lists from every city and town represented in the book, in many cases obtaining duplicate lists from different sources for the purpose of comparison and verification." Special mention should be made of the reference lists of roses, chrysanthemums, carnations and cannas which are probably the most comprehensive and useful lists published. The value of this feature will be appreciated at once. Changes in these lists have been numerous and a thoroughly revised and up to date directory will be welcomed. In addition to the features mentioned, the book contains a list of trade organizations; floriculture, nursery and seed growing statistics; the names of firms that issue catalogues; cemeteries, park superintendents, the botanical gardens of the United States, seasonable hints, leading horticultural societies that give exhibitions in which ornamental horticulture is a prominent feature, outline sketches of the Society of American Florists, American Carnation Society, American Association of Nurserymen, Chrysanthemum Society of America, Florists' Hail Association, American Seed Trade Association and express and postage rates. \$2. Chicago: THE AMERICAN FLORIST COMPANY.

HAVE PROVED ITS WORTH.

E. SMITH & SONS, GENEVA, N. Y. — "Enclosed find \$1 to renew our subscription for THE NATIONAL NURSERYMAN for one year. We find this a journal we can't afford to be without."

NOMENCLATURE OF AN APPLE.

Professor H. E. VanDeman has thrown considerable light upon the disputed question as to the nomenclature of the valuable new apple which has gone under the names, Mammoth Black Twig, Black Twig, Paragon and Arkansaw. He is inclined to accept the last name. In a communication to *American Gardening*, Professor VanDeman says:

"Dr. Moores has clearly stated how the Tennessee apple, which he named Paragon, came as a chance nursery seedling in a lot of Winesap trees bought and planted by Major Rankin Toole, near Fayetteville, Tennessee, about 1870, and that P. L. Twitty, a nurseryman, cut cions from this tree, and Winesap trees in the same row, and propagated and sent out trees of this mixed stock to planters and to other nurseries. When he found that he had a new variety among the Winesap trees, he called it 'Black Twig' (not knowing this was a synonym of Winesap), and from this source it is likely that the specimen was sent to Charles Downing, and which he describes under that name in his third appendix. Dr. Moores also tells us of another nurseryman, William Henry Smith, of Leiper's Fork, Tenn., who found the apple in an orchard, and thinking it was unknown, named it 'Eclipse,' but this Dr. Moores quickly noticed and suppressed.

"How extensively this variety has been propagated and spread is not known, but it is quite certain that it has been planted in many states, and perhaps in foreign countries. It is an improvement on Winesap in size, and the tree is better in shape, but the fruit is said to be easily affected with rot in the fall, and drops badly.

"The history of the apple that originated in Arkansas is that Mr. John Crawford brought seeds of Winesap and Limbertwig from Tennessee in 1831, and planted them on his place near Rhea's Mill, Washington county, Arkansas. From these seedlings he planted an orchard, and one of the trees bore such nice fruit that cions were cut and young trees propagated by grafting, which were set in orchards in that locality.

"In the fall of 1884 Mr. E. F. Babcock, who was making a collection of the fruits of Arkansas, for display at the New Orleans Exposition, found it on the young trees, and got specimens from those on the farm of William P. Crawford, a brother of John, and exhibited the variety as a local seedling. If Mr. Babcock knew of the existence and exact locality of the old tree, I do not remember him saying so, and we had many conversations about the variety, in the exhibition hall, where I first saw the apple. Mr. Babcock named the variety 'Arkansaw,' to agree with the local pronunciation, and labeled it so on the table, but he and others said it had been called 'Mammoth Black Twig,' by those who grew it, to distinguish it from Black Twig, which is the common name of Winesap, in the South.

"According to the rules of the American Pomological Society, the originator has the first right to give the name, and the introducer the next right. Now, if Mr.

John Crawford named it 'Mammoth Black Twig,' then that would stand, although the name is too long, and not according to another rule of the A. P. S. If Mr. Babcock's name, 'Arkansaw,' was the first given, then it should stand as the approved name. Which name will be accepted by the A. P. S., and the nurserymen and pomologists, is to be decided by them. I favor 'Arkansaw,' although there are objections besides possible lack of priority, etc.; for we have Arkansas Black, Arkansas Red, Arkansas Beauty, Arkansas Traveler, and perhaps other namesakes of that state. The synonym, Paragon, should be dropped at once, and I regret as much as anyone that it was ever mentioned as the name of the apple of Arkansas, but, along with other pomologists, was led to believe the Tennessee apple had been taken to Arkansas and there renamed by mistake, as is very often done in like cases. There are many hundreds of such cases, and in the absence of information, such, at least, as was publicly and generally known, as to the old Crawford tree; and from the similar characteristics of both fruit and tree, what was more reasonable than to decide as we did? The evidence was circumstantial, but that is good enough to hang people until they are dead, and why not to name an apple?

"One thing is certain, the 'Arkansaw,' (if you will agree to the name), is an apple of good qualities, both in tree and fruit, and is an honor to its native state, and she and the originator and introducer should have the full benefit of all that belongs to them."

AMERICA'S BROAD LATITUDE.

In looking over the seed and plant lists of the large American growers for the first time, the casual observer cannot fail to be struck by the many obvious differences which distinguish them from the excellent publications of the old country, says Dr. F. H. Mead, San Diego, Cal., in *Gardener's Magazine*. The American grower has to cater for patrons living in very different latitudes to British horticulturists, and, apart from the advantages which the gulf stream gives our western shores, for a very different "condition of climate" to what obtains in these islands. Where in England, for example, can peaches and apricots be grown successfully on standard trees? Perhaps in southern Cornwall; but we must go as far as Brittany, below 49 degrees north latitude, for really successful growth. The United States, it must be remembered, lies between 48 and 32 degrees north latitude; or, including the extremity of Florida, below 30 degrees, even to 25 degrees; or in the tropics for this small section of one state. The difference in the plants raised is therefore readily explained. The peaches of Maine, the apples of Washington Territory, the oranges of Florida, Louisiana, California, the deciduous fruits in general of California and Arizona, and the lemons of the extreme south of California, are well known as instances of climates well adapted for each variety of fruit mentioned.

PEACH GROWING IN FRANCE.

The cultivation of the peach in France is carried on extensively as a commercial undertaking, both standard and wall trees being grown. The latter, however, are the most profitable. The largest centres of production are Montreuil, near Paris, and Ecully, near Lyons, where the method of training peach trees has been brought to great perfection. Montreuil, which is a favored spot both for soil and aspect, has 300 hectares of land surrounded by walls, the inner side of which are used almost entirely for growing trained peach trees. The total produce of these gardens is estimated at about 3,500 francs per hectare from peaches cultivated in this way. The severe winter 1879-1880 caused losses to the value of 2,500,000 francs, including peaches on trellises and walls, and in orchards; but there is no doubt that owing to the replacement of the dead trees by new ones, and to the fresh plantations made, the district will soon regain its former prosperity. There are about 600,000 meters of fruit walls at Montreuil, counting the walls used for dividing the different properties which are invaluable for concentrating the heat and keeping off the cold, as well as increasing the available space for trained trees; and so, calculating that one meter of wall produces twenty-two to twenty-five peaches, one arrives at the sum of 12,000,000 peaches as an average annual yield. Or, say that there are 300 hectares enclosed, of which one hectare can yield 40,000 peaches, or one acre 15,000, and we arrive again at a total of 12,000,000 peaches. The first ripe fruit sells at from two to three francs apiece, and the latest, when there is no longer any competition to be feared from the South, will fetch even more.

Peaches are most plentiful from August 15 to September 15. The Montreuil grower, endeavoring to ensure a continuous sale of fruit without any interval, has for some years largely grown Hale's Early as a connecting link between Amsden and Early Grosse Mignonne. The variety Baltet, which ripens about October 15, ends the season of good peaches. In his lecture before the R. H. S., M. Baltet stated that in 1892 Montreuil produced 600,000 francs' worth of peaches and apples, and 200,000 francs' worth of other fruits; it also sent out a total of 800,000 francs' worth of vegetables, and flowers to the value of 300,000 francs, besides a quantity of grapes, the produce of forty-five hectares of vines. The people of Montreuil not only take fullest advantages of climate and soil, and all the opportunities of increasing their business that present themselves—they also make opportunities.—*Gardeners' Magazine.*

F. JAMES, Ussy, (Calvados) France.

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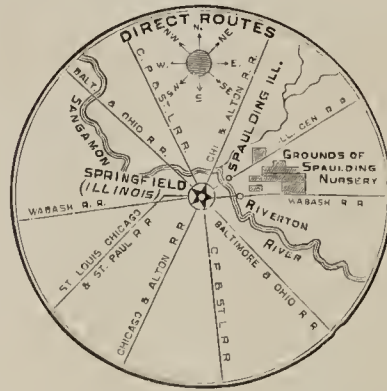
In our last number, we now give the names of more varieties which have been added to the list of plates, which heretofore could only be procured hand painted, but are now lithographed by that progressive firm, the Stecher Lithographic Co., of Rochester, N. Y. Crown Bob and Whitesmith Gooseberries; Hilborn & Palmer Raspberries; Stone's Hardy, Wilson Jr. and Eldorado Blackberries; Greenville, Shuckloss, and Timbrell Strawberries.

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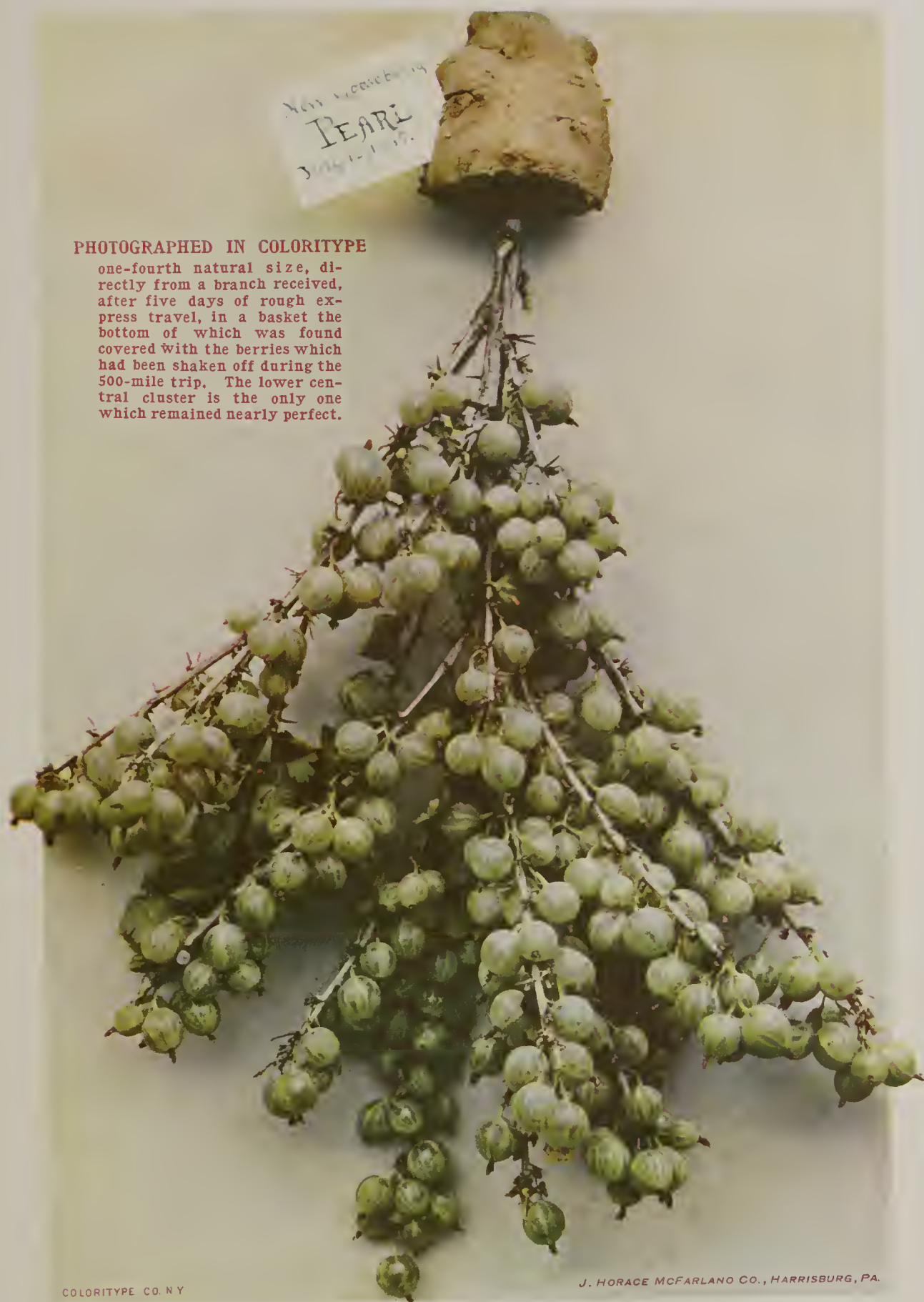
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one-fourth natural size, directly from a branch received, after five days of rough express travel, in a basket the bottom of which was found covered with the berries which had been shaken off during the 500-mile trip. The lower central cluster is the only one which remained nearly perfect.

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THE MOST PROLIFIC GOOSEBERRY KNOWN

INTRODUCED BY **ALLEN L. WOOD**
WOODLAWN NURSERIES, ROCHESTER, N. Y.

PEARL GOOSEBERRY.

The Pearl is a new candidate for horticultural favor, which we offer to the public, confident that it will head the list of Gooseberries. We believe that all that is necessary to prove what we say is to give it a fair trial, and then, when it is as well known abroad as it is at home, it will advertise itself.



Testimonials from Prominent Men.

The following is the report of the editor of the *Canadian Horticulturist*, who saw this fruit in bearing on the grounds:

The Pearl is a Gooseberry grown from the seed of Houghton, crossed with Ashton Seedling, by Professor William Saunders, and worthy of special notice because (1) of its **good quality**; (2) its **size**; (3) its **productiveness**; (4) its **freedom from mildew**.

Now, with reference to these points, I will state the results of my observations: The quality is good, very much like the Downing in this respect, as well as in color marking; but in size it averages nearly double that berry, and that in spite of the prodigious crop under which the bushes were laden. There was a row of some sixty fine bushes, one year planted, and most of them were literally bent to the ground with heaps of fruit. The average was eight berries per inch of wood, and on one bush we estimated that there must have been 2,500 berries. We have had great loads upon the Smith, the Downing and others, on our own grounds, but we have not seen quantity of fruit upon the bushes of any variety to equal that upon these bushes of the Pearl. Should this productiveness prove constant, the berry will be of great value for the market. With regard to the mildew, all we can say is what we saw; viz., it was entirely free from it. One bush stood next a Whitesmith, and while the berries of the bush were covered with mildew and utterly worthless, no trace of this fungus could be found upon the Pearl.

SILAS WILSON, Pres. of the American Association of Nurserymen, says:

Dear Sir—The Pearl Gooseberry is a great sight. There could be no more berries on the stem without crowding off the leaves. It is wonderfully productive, and I am pleased to find the quality so good. **The best Gooseberry I ever saw; nearly sweet.** There is no question about its future.

H. C. KERMAN, Grimsby Nursery, Ont., says:

Dear Sir—Yours of the 8th at hand. I can conscientiously recommend the Pearl. It is the coming berry, and will when known entirely replace the Downing; it is larger, heavier bearer, strong grower. Entirely free from mildew, and as one of our most prominent fruit growers in this district remarked, it is the best thing that has been put on the market, in the fruit tree line, for years.

CHASE BROTHERS' COMPANY, of Rochester, N. Y., says:

Dear Sir—Knowledge comes from visible evidence, and although sometimes we are deceived by what is called optical illusion, yet we feel safe in believing that the branch of "Pearl Gooseberry," shown us a few weeks ago was an actual and tangible horticultural product. **We never saw anything like it before,** and only expect to again in this variety.

There is now no question as to the superiority of the "Pearl" over all others for bearing qualities, and we think the fruit is equal in size and quality to any of the American varieties.

We shall push the sale of the "Pearl," feeling sure our patrons will appreciate a good thing.

T. T. LYON, of the Michigan Agricultural Experiment Station, South Haven, Michigan, says:

Dear Sir—I have been testing the Pearl Gooseberry here for several years; in my forthcoming report (now ready for the press) **I grade it for vigor and productiveness ten, and for quality nine, upon the scale one to ten.**

THOS. BEALL, of Lindsay, one of the directors of the Ontario Fruit Growers' Association, says:

I have tested the Pearl Gooseberry for the last seven years, find it very prolific, and as to size fully one-half again as large as the Downing. **A row of sixteen bushes yielded an average of eleven quarts of clean, salable fruit to the bush in the past season.**

ALLEN NURSERY CO. says:

Dear Sir—The branches of the Pearl Gooseberry laden with fruit which you showed to us recently were indeed a sight to behold. Judging from what we saw, it indicates **the most prolific bearer we have ever seen,** and we were greatly impressed with its wonderful bearing qualities. We do not believe that any other Gooseberry now known among us will be anywhere near as profitable to fruit growers. **We predict a brilliant future for the Pearl.**

GEO. W. CLINE, one of Ontario's most successful fruit growers, says:

Dear Sir—It is with the greatest pleasure that I can certify to the value of the Pearl Gooseberry, for after having seen it in bearing, its wonderful yield, its extra quality, its good size, I believe it to be the best and most profitable to plant, and in proof thereof I have now some 2,000 plants, and am only sorry I have not four or five acres in bearing.

THE HAWKS NURSERY CO., Rochester, N. Y., says:

Dear Sir—As to our opinion of the Pearl Gooseberry, we must say that for productiveness we have never seen its equal, judging from the branches shown us, as they were completely covered with fruit of good size. As they were green when we saw them we could not tell the quality, but judging from them as they were we should say that they would compare very favorably with any other American variety in that respect. **"It's a good thing; push it along."** We think it is as promising a berry, if not the best, of American origin that has been introduced in a long time.

The PEARL Readily Retails for 50 Cents Each and \$5 per Dozen.

Send and get our four pages of testimonials. Wholesale prices, etc., will be submitted on application. Elegant colored plates furnished free for Agents' Plate Books. Generous terms will be extended to parties desiring colored plates for use in catalogues. All communications will receive prompt attention.

Very truly yours,

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THE YELLOW RAMBLER (AGLIA).
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The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. IV.

ROCHESTER, N. Y., JULY, 1896.

No. 6.

THE CONVENTION.

Twenty-first Annual Meeting of the American Association of Nurserymen.

PRESIDENT'S ADDRESS—TREASURER'S REPORT—FREIGHT RATES—
STATE VICE-PRESIDENTS—LAWS AFFECTING NURSERYMEN—
WHOLESALE LISTS—OFFICERS AND PLACE OF MEETING—
TO PLANT OR NOT TO PLANT—THE DUTY OF NURSERYMEN—NURSERY LANDS OF NEW YORK—
IMPROVING THE AMERICAN GARPE—TARIFF
DISCUSSION—THE EXHIBITS.

The twenty-first annual meeting of the American Association of Nurserymen was held at the Sherman House, Chicago, on June 10th and 11th. There were present 130 members. Among the prominent nurserymen of the country who attended this convention were: Robert Douglas, George W. Campbell, Jacob W. Manning, Edgar Sanders, L. G. Kellogg, Professor H. E. Van Deman, Professor L. H. Bailey, N. H. Albaugh, Irving Rouse, E. Albertson, Henry Augustine, A. L. Brooke, E. M. Buechley, Lewis Chase, A. H. Griesa, W. F. Heikes, D. Hill, J. W. Gaines, J. J. Harrison, C. H. Perkins, George S. Josselyn, D. S. Lake, Thomas B. Meehan, Alexander Pullen, Wing R. Smith, E. Y. Teas, J. Van Lindley, C. L. Watrous, W. A. Watson, A. Willis, Allen L. Wood.

Upon the opening of the convention on Wednesday morning, June 10th, by President Silas Wilson, C. L. Watrous moved that the election of officers and the selection of a place for the next meeting of the association be postponed until afternoon on the next day and that a committee of three on order of business be appointed. The chair appointed as such committee: Messrs. Watrous, Albaugh and Heikes.

PRESIDENT'S ADDRESS.

President Wilson said:

I have not written an address. The object of our association is the promotion of the interests of the fraternity, socially and otherwise. I wish to call your attention to some important matters connected with the nursery business. One of these is the transportation problem. We have been, as an association, a little lame in not having ample provision made to take care of this matter year by year. Our product has depreciated 50 per cent. in three years. There is a tendency on the part of traffic associations to advance rates, while the prices of our product are going down. It seems to me that we should appoint a committee to meet the transportation association, and secure such concessions as we are entitled to. It has occurred to me that this is a very important question. I would recommend the appointment of a committee of at least three members of the association, and an appropriation sufficient to meet the expenses. We find a change in the minimum of nursery stock in carload lots equivalent to an advance in the rate of

20 per cent., and prices of stock are going down, down, and we do not know where they are going to stop. I hope the association will take some action in this matter. I believe that the railroad companies will meet us half way. Two million dollars worth of nursery stock represents a large and important industry in the country. This committee should have authority to act in the absence of a meeting of the association. Last year my attention was called to this subject. I wrote to the executive committee, the members of which replied that they could not act, as they could not expend money under the constitution.

Another matter: I believe this association should not take the line of a horticultural school. We should make the meeting as social as possible, and should, above all things, extend our acquaintance. It is a love feast; an opportunity for us to take each other by the hand. It is a rest, a change of programme. The nurseryman is not in any way idle.

In regard to the next place of meeting, you will consult the best interests of the association in order to get out a large attendance. I am pleased to see so large a number here, and so much interest manifested.

TREASURER'S REPORT.

Treasurer N. A. Whitney presented the following report: Balance on hand, June 10, 1895, \$1,558.92; received from Secretary George C. Seager, October 11, 1895, \$300; June 3, 1896, \$700; June 9, \$123.60; June 10, \$83.10; total, \$2,765.62. Paid Professor L. H. Bailey, \$45; Professor Webster, \$21.40; Miss Jackson, \$50; Union and Advertiser Printing Co., \$229.26; salary of secretary, railway agent and postage, \$340.50; treasurer, \$50; Union and Advertiser Printing Co., \$192.34; balance on hand June 10, 1896, \$1,837.12. The gain during the year was \$278.20. A. Willis, Z. K. Jewett and C. N. Dennis were appointed an auditing committee.

The committee on order of business reported the following plan which was adopted: President's address, report of the treasurer, appointment of committees, recess until 2:30 p. m., election of officers, selection of place of meeting, the remainder of the programme as published.

N. H. Albaugh: "Last year one of the inducements to come to Chicago was a promised sail on the lake. One man proposes to take us out at 9 a. m., for a boat ride until noon at \$1 per passenger. There is a proposition from the West Michigan Horticultural Society that we go over to St. Joseph, Mich., by boat to-morrow night, arriving in the morning in time to attend the meeting of the society and see a great fruit country. Free transportation is offered."

O. E. Fifield, Benton Harbor: "We extend a cordial invitation to all to come over and see our fruit country in bloom."

Wing Smith: "I move a vote of thanks to the Michigan Society and the appointment of a committee of three to ascertain how many will accept the invitation."

The chair appointed as such committee Messrs. Smith, of New York, Stannard, of Kansas, and Albertson, of Indiana.

FREIGHT RATES.

A. L. Brooke, North Topeka: "We of the Western Association of Wholesale Nurserymen had the question of freight transportation before us for several years. In looking up this matter we found various methods in use. We have a leverage which we employed and now we have the question back to the old basis as far as the section west of the Mississippi is concerned. There should be a committee of five, not three, and the members should represent the entire country from the Pacific to the Atlantic coast. It is hard for us west of the Mississippi to know what you east of us have. I move the appointment of a committee of five on tariff rates."

Z. K. Jewett, Sparta, Wis.: "I suggest as an amendment that the membership of the executive committee be increased to five and that it act as the committee proposed."

A. Willis, Ottawa, Kan.: "The executive committee has considerable work. I think this should be a separate committee, composed of some of the best men of the association."

Mr. Brooke: "Mr. Willis' idea is a good one. This question of tariff is a question of money to nurserymen. A concession has been made west of the Mississippi, but the minimum east of the Mississippi has not been reduced."

President Wilson: "We will make a mistake if we do not have a good committee. The executive committee is burdened with other duties. The tariff committee should have an ample appropriation and should be clothed with all the authority this association can give it. Anything short of that will be a mistake."

Mr. Watrous: "I believe we all agree that such a committee should be appointed. I believe we ought to go one step further. I offer an amendment that there be placed at the disposal of the committee \$500 or so much of it as may be needed, so that it may be ready for an emergency."

Mr. Brooke's motion as amended by Mr. Watrous was adopted. Mr. Willis proposed that the president be chairman of the tariff committee, ex-officio. Mr. Brooke objected on the ground that the presidency would change and the position of chairman of the tariff committee, being very important, should not depend upon a contingency. In view of a possible change in the personnel of the association's officers at the election, Silas Wilson was elected a member of the tariff committee upon motion of J. Jenkins, Winona, O.

STATE VICE-PRESIDENTS.

At the afternoon session the following vice-presidents from states were elected:

Alabama, W. F. Heikes, Huntsville; Arkansas, D. Wing, Rogers; Colorado, George J. Spear, Greeley; California, Thomas B. Bolander, Chico; Connecticut, J. H. Hale, South Glastonbury; South Dakota, George A. Whiting, Yankton; Delaware, Alexander Pullen, Milford; Florida, G. L. Taber, Glen St. Mary; Georgia, R. C. Berckmans, Augusta; Idaho, S. S. Lewis, Boise City; Illinois, C. N. Dennis, Hamilton; Indiana, Emory Albertson, Bridgeport; Iowa, C. L. Watrous, Des

Moines; Kansas, J. H. Skinner, Topeka; Kentucky, Horace Klinglesmith, Cecilian; Louisiana, Andrew Currie, Shreveport; Maine, Herbert A. Jackson, Portland; Maryland, Howard Davis, Baltimore; Massachusetts, J. W. Manning, Reading; Minnesota, J. Cole Doughty, Lake City; Michigan, O. E. Fifield, Benton Harbor; Mississippi, Dr. H. E. McKay, Madison; Missouri, R. H. Blair, Kansas City; Nebraska, H. D. Bryant, Fremont; New Hampshire, Benjamin G. Chase, Derry; New Jersey, David Baird, Manalapan; New York, Irving Rouse, Rochester; North Carolina, J. Van Lindley, Pomona; Ohio, J. Jenkins, Winona; Ontario, M. E. Morris, Welland; Oregon, J. H. Settlemier, Woodburn; Pennsylvania, George Acheles, West Chester; Tennessee, N. W. Hale, Treeville; Texas, T. V. Munson, Denison; Vermont, D. J. Camp, East Randolph; Virginia, W. T. Hood, Richmond; Wisconsin, L. G. Kellogg, Ripon; Washington, C. L. Whitney, Walla Walla.

LAWS AFFECTING NURSERYMEN.

E. H. Bissell, Richmond, Va.: "I wish to call attention to recent Virginia legislation on the subject of the San Jose scale. The law was prepared by myself with some assistance, and is modified so that it does not injuriously affect nurserymen. I also present the Maryland law, which was recently enacted and which is very stringent in its demands upon nurserymen. I suggest that these and other similar laws relating to the San Jose scale be published in the proceedings of the association."

Mr. Willis: "There is legislation upon other subjects of interest to nurserymen. Would it not be well to have a committee to prepare all such laws for publication in the proceedings?"

Mr. Bissell: "I would add that Mr. Chase, of R. G. Chase & Co., was greatly inconvenienced by the operation of the Maryland law, which requires that a certificate be furnished, showing that nursery stock shipped into Maryland is free from all insects. I think some of these laws are ill-advised."

Mr. Albaugh: "Laws have been passed recently, not only in California and other Pacific coast states, but also in Michigan, Maryland and New Jersey. It may be well to put the substance of these laws in our report. It might prove valuable. I should like to know what the Maryland law is, as well as the laws of other eastern states."

Mr. Willis: "I suggest that a committee be appointed to examine the laws of all states affecting nursery interests, with a view to their publication in the proceedings."

R. A. Wickersham, Winchester, Va.: "The laws are not long."

Mr. Brooke: "Kansas has the reputation of kicking. We have questions interesting the West. If you do this you will have a large law book. You ought to publish as well the California, Oregon, Washington and Colorado laws. If a nurseryman ships stock to Colorado, he must furnish a sprayer, an emulsion, buckets, and a white-washer, or pay a good price to the inspector. Inspectors do not know their business. Why, one of them asked 'What is the aphid?' And, when shown it, said, 'Is that the little thing?' If we have a committee to ascertain the laws, it should cover the subject."

Amendments and motions providing for the codification and publication in the proceedings of the laws

referred to were lost, and the discussion was stricken from the minutes.

Afterward Mr. Bissell, who was very anxious that the association should take some action in the matter, and who was supported by Mr. Van Lindley, Mr. Young, and others, asked that a resolution condemning the action of the Maryland legislature be adopted.

Mr. Watrous: "The resident members should act. If it were a national law that was complained of it would be different. The same thing as in Maryland was attempted by the Iowa legislature, but a few of us went before the proper authorities and it was stopped."

Mr. Greening: "I should favor a resolution condemning Maryland's action."

Mr. Augustine: "How did the Maryland law originate? Was it drawn by the fruit growers, or was it prepared by nurserymen?"

Mr. Bissell: "The law was handed to me by Howard Chase, of R. G. Chase & Co. I think we ought to act in the matter, and co-operate with Maryland nurserymen."

Mr. Watrous: "I must dissent to a motion to publish the law. It will add to the expense of publishing our proceedings. It is a local law. It will not last. It was undoubtedly passed hastily. We might adopt some sort of a resolution."

Mr. Heikes: "I think we ought to take action against such a law, and against the entomologist enforcing it."

Mr. Albaugh: "I think it would be a mistake to publish the law. It would be sending it broadcast and adding to the mischief, inducing other states to act similarly. They had better not try it in Ohio. 'John Bull and his Tree Bill' was the subject of my first speech in the Ohio legislature. There is no sense in it. Maryland growers should stop it. California has such a bill. I saw 50,000 peach trees lying discarded by the roadside out there. They had knots as large as a hazel nut up to the size of a butternut. I asked the foreman of the nursery what was the matter with those trees. He said he didn't know. I shall always think he did know. I knew. Any of you who ship nursery stock into California will find that it will be overhauled by a committee that doesn't know a curculio from an aphid, or a cherry slug from a tumble-bug. Maryland growers should wake up or we will have to wake them up."

The following resolution was finally adopted:

"Resolved, That all laws enacted by states, discriminating against nursery products, shipped into such state from other states, are hereby condemned by this association as unfair and unjust to interstate commerce and in every way objectionable, and we ask the repeal of all such laws."

The chair announced the following committees: Exhibits—Henry Augustine, R. A. Wickersham, J. W. Gaines; necrology—George W. Campbell, Jacob W. Manning, Charles Greening; final resolutions—Wing R. Smith, G. E. Meissner, E. Albertson; transportation—N. H. Albaugh, Irving Rouse, A. L. Brooke, W. F. Heikes, Silas Wilson.

WHOLESALE LISTS TO ORCHARDISTS.

What was intended merely as a little pleasantry developed into a discussion of one of the main questions now agitating the nurserymen. Mr. Morey, of Dansville, N. Y., said he desired to have read a paper by one of the most prominent nurserymen in one of the greatest nursery centers of the country. In one of the grandest flights of oratory of the convention, Mr. Morey presented Charles Greening, of Monroe, Mich., who stepped to the platform and read a circular which his firm had prepared on the subject of wholesale lists to orchardists. Mr. Greening made a plea for the retail nurseryman, in support of the circular. At the conclusion of his somewhat extended remarks, Mr. Albaugh was called on to respond. There was a general laugh when Mr. Albaugh said he did not catch the drift of the remarks.

Finally Mr. Albaugh said: "Some tells me it was a complaint that wholesale nurserymen are sending their price lists broadcast to the injury of the retail trade. Now that does not mean me. We do not do that. We sell to customers at retail rates. Any one who does the sort of thing complained of can follow it a year or two and then his name is mud. If anything will undermine the nursery business, it is this."

President Wilson: "I heartily endorse what Mr. Albaugh has said. The civil war tested men as they have seldom been tested. The last few years have tested the nurserymen. Many have been subject to circumstances entirely unusual, and have been compelled to go into the market and offer their stock at wholesale prices. We must have the retailer. This is a very important question."

Mr. Willis: "I am in the retail nursery business. I have tried to sell trees at low prices. I don't believe people want to buy trees at low prices. I believe trees can be sold now, and that they are going to be sold. The planter will buy where he can get his trees the cheapest. A great amount of stock is going to be bought from the traveling salesman. The farmer goes to town for sugar, tea, etc., but not for trees. The salesman comes along and persuades him to buy. The fact that wholesale price lists are in the farmer's house don't sell that stock, but it does hinder the salesman from making sales. The consequence is, the farmer does not buy at all, neither of wholesaler or retailer. The wholesaler may get a few orders in this way, but he will lose more from the retailers than he will make in this way from the consumers. We see wholesale prices in the papers, but they do not get the trade. It seems to me that the best policy is for the wholesalers to confine the distribution of their wholesale lists to dealers."

Mr. Greening: "Last spring many carloads of stock came into Michigan from the East, and were placed on side-tracks where the stock was auctioned."

Mr. Hale, Treeville, Tenn.: "In the South the subject you are discussing is more hurtful than any other. It almost ruins the retail trade. Farmers keep the wholesale catalogues in sight. The consequence is that there

are in the South few orchards and few nurserymen who make a fair income, because the public is in a sea of advertising of prices below the cost of production. Some catalogues advise planters not to buy of an agent. Farmers as a whole would be willing to pay the price labor earns if they were not deterred in this way. Any man is entitled to a reasonable return on his investment. We have 200 salesmen. It costs from 25 to 40 per cent. more to conduct our agency business because the men have to face a storm of low prices. It is the only trade in the United States which is so demoralized. We are cutting each other's throats. The retail business is the life of the trade. As a result, the fruit industry is being ruined. I know farmers who are rich men, and yet have not a ripe apple for their boys to eat. It is wrong. This practice gets things crosswise. We should devise a plan for legitimate and honest trade between wholesaler and retailer."

OFFICERS AND PLACE OF MEETING.

Mr. Watrous presented the report of the executive committee on nominations and place of meeting. These officers were suggested: President, Silas Wilson, Alantic, Ia.; vice-president, G. E. Meissner, Bushberg, Mo.; secretary, George C. Seager, Rochester, N. Y.; treasurer, N. A. Whitney, Franklin Grove, Ill.; executive committee, C. L. Watrous, Des Moines; Irving Rouse, Rochester, N. Y.; P. J. Berckmans, Augusta, Ga.

The committee recommended that the association meet next year in St. Louis.

In view of the probable discussion as to place of meeting, the question on the adoption of the report was divided upon the election of officers and the place of meeting, the latter question first occupying attention.

Wing Smith, of New York, presented for consideration the Thousand Islands as picturesque, accessible, near one of the largest nursery centers and an eastern point. A. L. Brooke spoke for St. Louis. Thomas B. Meehan seconded Mr. Smith's motion for the Thousand Islands. Mr. Meissner, of Bushberg, Mo., favored St. Louis.

Mr. Albaugh: "My idea has been that if there is any place in this world where it is cool let us get there, for it may be hot in the next. The last two meetings of the association have been in the West. We had a full meeting at Niagara Falls. It is a question we ought to consider whether one meeting in four or five should not be held in the East so that eastern members may attend in large numbers. It is a mistake to think that the eastern coffers are full of gold. I believe we ought to give the Nutmeggers and those in the Green Mountains, in Maine and Massachusetts a chance for their white alley. We come out here for three or four meetings and imagine all the nurserymen are west of the Allegany Mountains. I want to know more of those in the East who can sell pears so cheap. I think we ought to go and enlighten them. I move to substitute the Thousand Islands for St. Louis, and when we adopt the amendment and motion let us bring our wives and daughters and have one of the good old meetings. I don't want to go to St. Louis.

Let us go and have a good time once in a while and the balance of the time we can sweat it out. We can get low rates to the Thousand Islands."

Mr. Willis: "I never knew of a meeting of the association in the West. St. Louis is 500 miles east of the center of this country. Let us have a meeting in the West."

Mr. Augustine: "I live half way between St. Louis and Chicago. I have objections to going to St. Louis. In June it is about as hot there as we experience anywhere. I've found it universally hot. I favor Chicago. We need not go here and there to act as missionaries. We ought to make Chicago a permanent meeting place."

Mr. Wirt, Alpha, Ill.: "Our meetings are mainly for business. I disagree with Mr. Albaugh who says they are for rest and recreation mainly. We all come here to transact as much business as we can. Therefore, let us go to St. Louis where the attendance will be larger than it would be in the East."

Mr. Albaugh: "I would refer the gentleman to the constitution of the American Association of Nurserymen, which says: 'The object of the association shall be to promote the general interests of its members in: First, relaxation from business; second, the cultivation of personal acquaintance with others engaged in the trade; third, the exhibition of fruits, flowers, plants or manufactured articles used in the business; fourth, exchange and sale of stock.' He are three ways in which the association proposes to conduce to the pleasure of its members, and one little clause at the end referring to business."

Mr. Wirt: "Mr. Albaugh presents the subject very nicely, but I notice he has the same lingo with his agents, and yet he expects them to seek work and not pleasure mainly."

Mr. Augustine's amendment making Chicago a permanent place of meeting was defeated; ayes, 22; noes, 50. The motion to substitute the Thousand Islands for St. Louis, President Wilson declared, was lost by two votes on a rising vote. The vote was reconsidered upon motion of Mr. Augustine, who said he voted for St. Louis. A ballot was then taken on the two places suggested. This resulted as follows: St. Louis, 60; Thousand Islands, 55.

The officers as reported were then elected.

TO PLANT OR NOT TO PLANT.

The first paper on the programme was one by N. H. Albaugh, entitled "To Plant or Not to Plant." Mr. Albaugh spoke extemporaneously as follows:

Whether it is better for the average nurseryman to continue to grow apple, peach and plum, etc., at a price scarcely covering the cost of digging and shipping, or whether it is better for the nurseryman to burn all his digging spades and spraying tools, and take up the oxen and mules and plows to raise 40-cent wheat, 20-cent oats, 5-cent potatoes, and 50-cents on a silver dollar, must give us pause, and cause us to consider whether we should rather bear those ills we have, than fly to others that we know not of. If the present wholesale prices were guaranteed to continue five years, we might better turn our attention to cattle raising in Texas, sheep breeding in Vermont, or peach growing in Georgia. But it seems that whenever this question comes

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GEORGE W. CAMPBELL.

The subject of the following sketch was born in Cortlandville, N. Y., January 12th, 1817. His father, David Campbell, was a printer, and published a newspaper, the *Cortland Republican*, from 1815 to 1820; emigrated with his family to Ohio, in 1821, and was one of the pioneer editors of Northern Ohio, having commenced the publication of a newspaper at Sandusky, Ohio, named the *Sandusky Clarion*, the first number of which was issued in May, 1822. At the age of eight years, George W. learned the art of type-setting, and much of the time until his majority was spent in his father's printing-office. In 1839 he became connected with the publication of the paper and the *Daily Sanduskian*, until the year 1849, when he moved to Delaware, Ohio, and was principally engaged in farming and stock-raising.

In 1857 he became interested in propagating and disseminating the Delaware grape, which was first brought to notice and sent out from Delaware, Ohio, and was named "The Delaware" by A. J. Downing.

Mr. Campbell developed, early in life, a decided taste for horticultural pursuits, and before he was sixteen years of age had his father's garden at Sandusky filled with the choicest selections of fruits obtainable at that time, among which were probably the first cultivated grape vines planted in that lake shore region which afterward became, with the adjacent islands of Lake Erie, one of the most important vineyard and fruit-growing sections of the country.

About the year 1850 he joined the American Pomological Society, and has been a continuous member until the present time, being one of the oldest members of that time-honored society. He has also been a member of the Ohio State Horticultural Society for about the same time and has been successively treasurer, secretary, vice-president, and president of the society.

Mr. Campbell was appointed by President Hayes as one of the United States commissioners to the Paris Universal Exposition in 1878; and was also in attendance at the expositions at Philadelphia, Louisville, New Orleans, and the Columbian World's Exposition at Chicago, in various official capacities. He has been identified with the horticultural interests of the country in various ways for the past forty years.

After removal to Delaware, and becoming interested in the Delaware grape, Mr. Campbell turned his attention

to the cultivation and propagation of other grapes, also, growing and testing all the new varieties of promise, as they successively appeared.

THE YELLOW RAMBLER.

One of the most attractive novelties of the season is the Yellow Rambler, introduced by Jackson & Perkins, Newark, N. Y. The Yellow Rambler (*Aglaia*), comes from Peter Lambert, the well-known rose grower of Germany, who is one of the highest authorities and most successful growers in all Europe. His reputation for thorough reliability is very great indeed, and should alone be a sufficient guarantee of the value of the rose. Messrs. Jackson & Perkins were so favorably impressed with his description of it, that they immediately arranged with him for the sole right to distribute it in the United States and Canada.

Messrs. Jackson and Perkins say:

This rose has successfully withstood continued zero weather, without any protection. With a very slight protection in the winter we believe it can be successfully grown anywhere in the United States where other roses succeed. Did we say nothing further about the rose, we think the above would be sufficient to establish its value. The Yellow Rambler is a product of the Japanese Polyantha *Samentosa*, fertilized with pollen of *Reve d'Or*, and is, therefore, very closely related to the *Crimson Rambler*, since the *Polyantha Samentosa* was undoubtedly a parent of the latter.

In foliage, habit of growth and manner of blooming the Yellow Rambler strongly resembles the *Crimson Rambler*. It throws very strong, vigorous shoots, often making a growth of 8 to 10 feet in one season. The flowers are produced in the same immense trusses, and Mr. Lambert assures us that on plants that have been established a year or two, he has often counted one hundred and twenty to one hundred and fifty blooms to a single spike. The

trusses are pyramidal in shape, like those of the *Crimson Rambler*. The flowers are nearly full, small, like those of *Gloire des Polyanthas*, of a cupped form and very sweetly scented. In color they are a rich golden yellow, about like *Madame Falcot* and darker than *Coquette de Lyons*.

As the climbing noisette *Alister Stella Gray* has been offered under the name of *Golden Rambler*, it is well to add, in order to avoid all chance of confusing the two, that the Yellow Rambler is entirely different from it, and we consider the latter much the greater acquisition, since it has the qualities of very great vigor and considerable hardiness, so rare in all yellow roses.

The frontispiece of this issue presents a view of the new rose. It is from a photograph taken in Germany. The trusses of blossoms were not in full bloom at the time the photograph was taken.



GEORGE W. CAMPBELL.

G. T. KINSEY, PAXTON, ILL.—"Enclosed please find draft for \$1 for my subscription for one year. I could not keep house without THE NATIONAL NURSERYMAN."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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ROCHESTER, N. Y., JULY, 1896.

THE AMERICAN ASSOCIATION.

The twenty-first annual meeting of the American Association of Nurserymen has passed into history. Its proceedings will be summarized and added to the list of those of its predecessors. Opinions as to the results will differ. It will be generally agreed, probably, that the objects of these annual meetings are mainly the extension of acquaintance and good fellowship, for there was perhaps less business transacted at the Chicago meeting of 1896 than has been the case at any of the meetings for several years. The occasion was characterized by the attendance of a number of the veteran members, nurserymen of national reputation, whose participation in the proceedings added greatly to the interest and instruction.

President Wilson repeatedly evidenced his active interest in the welfare of the members by making suggestions which led to action by the convention. The treasurer's report showed a prosperous financial condition of the association. The discussions on freight rates, the tariff and laws affecting nurserymen touched upon subjects which are of fundamental importance to all in the trade. More time might have been profitably spent on these matters. A vote of thanks was promptly tendered Professor Bailey for his remarks which, as Mr. Watrous said, opened up a large field of thought and will undoubtedly lead to considerable study upon the subjects connected with the treatment of the soil.

The first lively discussion in open convention as to place of meeting led to the expression of individual opinions on this subject which have heretofore been

reserved for small coteries. The choice was finally made in a satisfactory and good-natured manner, a large minority acquiescing readily to the will of the majority. The association is to be congratulated upon retaining for another term as its president a man whose deep interest in the prosperity of the trade, general knowledge of conditions and executive ability especially fit him for the position. A prominent eastern nurseryman said: "I look forward to these occasions as among the most enjoyable of the year." It is in the same spirit that the members will anticipate the twenty-second meeting in St. Louis in June, 1897.

REDUCTION IN PEACH CROP.

During the closing week in June southern peaches began to move toward the northern and western markets. The volume of the crop is quite different from what was promised in the spring. The commercial crop of the South will be less than half of that of last year. Reasons assigned are that the orchards bore heavily last year and they have been subjected to attacks of the curculio. The shipping season in the Georgia peach belt began June 20th. It will continue until August 20th.

J. H. Hale of South Glastonbury, Ct., and Ft. Valley, Ga., who has 100,000 peach trees in Houston Co., estimates that the peach shipments from all of Georgia will not exceed 500 cars this season, or only a third of what seemed a fair prospect last April when the fruit was well set on the trees and before the attacks of curculio. The railroads have made arrangements to put on fast trains, carrying southern peaches into New York two days after the fruit is picked, and almost as soon in Chicago.

The outlook in the northern peach orchards continues fairly bright. Michigan growers are encouraged. The crop in Maryland and Delaware will be uneven.

MR. SANDERS' OBSERVATION.

Edgar Sanders, of Chicago, writing to the *Florists' Exchange* regarding the Chicago convention says:

The 1896 meeting of the association may be set down as a very successful one. It speaks well for such a society when it has attained its majority (21 years), with a bona-fide paid-up membership of 409 members, according to the badge-book, exclusive of members taken at the convention, out of a possible 1,524 nurserymen in the country, as shown by the last directory.

One of the striking features of the occasion was the address on the "Nursery Lands of New York State," delivered by Professor L. H. Bailey, of the Cornell University. That address, in my opinion, is of profound interest to nurserymen in particular, and to thoughtful florists as well. I might say in passing, it is not a little singular that so little interest was taken by our city florists in this large body of men of kindred interests. Not even a presentation of flowers for the president's table was in evidence. On the other hand quite a delegation of nurserymen, on invitation by the president of the Florists' Club, was present on Thursday evening at its meeting, and participated in the discussion on hardy roses.

A. R. PENNELL, HONEOYE, N. Y.—"We enclose \$1 to balance account for THE NATIONAL NURSERYMAN, and sincerely hope that by this time every nurseryman in the nation is a good paying subscriber. It is filling a long-felt want."

Among Growers and Dealers.

C. M. Stark, of Stark Brothers Co., Lonsiana, Mo., is in Europe.

A. C. Tuttle, Baraboo, Wis., is reported to have made an assignment.

Irving Rouse and family are at the Thousand Islands for the summer.

Charles J. Brown, of Brown Brothers Co., Rochester, was in Chicago, the week after the convention.

Harlan P. Kelsey, Kawana, N. C., was in Rochester last month on his way from Chicago to the South.

Benjamin Chase, Derry, N. H., offers to send to any address a bundle of wired printed labels as samples.

The Stecher Lithographic Co., Rochester, has a new list of plates heretofore only to be procured hand painted.

Alexander Pullen, Milford, Del., invites personal inspection of his stock of peach and plum trees and asparagus roots.

Americana plums are a specialty of J. Wragg & Sons Co., Wauke, Ia. Their new hybrid raspberry will be ready in the fall.

Josiah A. Roberts, Malvern, Pa., says: "I have the finest lot of peach trees that I ever raised. They grew on new land from natural seed."

N. A. Whitney, Franklin Grove, Ill., has convinced many that the improved Western tree digger is unexcelled for handling nursery stock easily.

The Evergreen Nursery Co., Evergreen, Wis., are headquarters for evergreens. They will exchange for small fruits, hardy shrubs and clematis.

J. A. DeVeer, 15 Whitehall street, New York City, sole agent for F. James, Ussy, France, called upon Rochester nurserymen on his way East from Chicago.

A useful list of new lithographed plates is published by the Rochester Lithographing Co., which supplies both hand painted and lithographed plates.

Charles W. Shriver, manager of the West Michigan Nurseries, Benton Harbor, Mich., visited Rochester and Geneva nurserymen during the closing days of June.

E. F. Stephens, Crete, Neb., president of the Nebraska State Horticultural Society, has issued the programme of the summer meeting of the society at York, July 22-23.

Youngers & Co., Geneva, Neb., declare that their apple seedlings, grown on new land, are absolutely free from aphids. They have a general line of fruit and ornamental stock.

Andre L. Causse, the well-known importer, of New York city, procures his large and selected stock of raffia from Tamatav, Madagascar. Madagascar is now under French control.

No firm in the U. S. better deserves the confidence it receives than does the Storrs & Harrison Co., Painesville, O. They offer a general nursery stock graded to the highest standard.

C. H. Joosten, 193 Greenwich st., New York city, has just received from the World's Columbian Exposition commission a bronze medal and diploma for Fostite and Joosten's magazine bellows.

The Baltimore and Richmond Nurseries, Franklin Davis & Co., are of 50 years standing. They comprise 1000 acres, furnishing a complete stock of fruit and ornamental trees, seedlings, peach pits and general supplies.

A superior stock of apples, pears, cherries, plums, peaches, quinces, small fruits and ornamental stock is offered by Sears, Henry & Co., Geneva, N. Y., at most reasonable rates. This firm has a fresh stock of raffia.

Allen L. Wood, Rochester, visited the nurseries of J. Wragg & Sons Co., Wauke, Ia., last month. He inspected the Indian reservation and left suddenly. It is supposed he was afraid the Indians would take to the war path.

H. C. Graves & Sons, Lee's Summit, Mo., say they have not made an assignment as was reported. Through the purchase of additional land they became temporarily embarrassed. They say they will meet all their obligations.

P. Sebire & Sons, Ussy, France, offer through their agents for the United States and Canada, C. C. Abel & Co., New York city, a general stock of fruit tree stocks at low prices. They claim to have a large and superior stock.

This is the thirty-ninth year of L. G. Bragg & Co., Kalamazoo, Mich. Their stock this year promises to be unusually fine. The Common Sense tree-digger is a valuable tool. Bragg pays the return freight if the digger is not satisfactory.

Nelson Bogue, Batavia, N. Y., returned last month from a three weeks' trip through the South and West. He opposed the proposition to provide a protective tariff on nursery stock a few years ago, but now he is enthusiastically in favor of it.

Thomas B. Mechan, Germantown, Pa., and Herman Berkhan, New York city, stopped over in Rochester on their way east from the Chicago convention. They visited several western firms before starting eastward. Flower City nurserymen took them in hand and showed them some attractive things.

M. J. Wragg, Wauke, Ia., is superintendent of the fruit and flower department of the Iowa State Agricultural Society which will conduct its forty-third annual fair at Des Moines, September 4th to 11th. Mr. Wragg was at the Chicago convention and renewed many old acquaintances. Plums, cherries and raspberries are his specialties.

Among gooseberries the new white Chautauqua promises to attract much attention this season. It is claimed that it equals the finest and largest varieties in size, beauty and quality and that it excels all in vigor and yield. Sample branches certainly indicate that it will merit careful consideration. It is being introduced by J. Frank Norris, Brighton, N. Y.

The famous nursery and fruit farm business, conducted in South Glastonbury, Conn., by G. H. & J. H. Hale, has been assumed by J. H. Hale and the firm is dissolved. Mr. Hale retains most of the old farm and nursery grounds, and by the addition of a large adjoining farm will greatly increase and develop the business, which has been under his active management several years.

H. J. Weber & Son, Nursery P. O., St. Louis Co., Mo., write: "We are having magnificent growing weather and stock is looking very fine. Our spring trade was very good. We cleaned up all saleable stock, but prices were anything but encouraging, and in addition, collections are not what they should be. Planters in general are slower in paying this season than we have found them in a number of years. We hope for the better the coming fall."

George S. Josselyn, of Fredonia, the propagator, and George W. Campbell, of Delaware, O., the originator of Campbell's Early grape, expect most satisfactory results from this new grape which Mr. Josselyn will be ready to introduce in the fall. Mr. Josselyn said he had tried not to be carried away with the results which Mr. Campbell has produced in this grape, but in vain. "It has all the good qualities of the Concord," said he, "and none of its faults. It is a wonderful grape."

Probably the largest and finest block of young pear trees in this country is that of Irving Rouse in his nursery just beyond the city limits of Rochester. The block comprises 500,000 pear trees in first class condition. They stand upon a long gently rising knoll of clay soil, an ideal location for the purpose. The tops are as even as if they had been clipped for a hedge and the trees themselves are straight as arrows and of uniform size. In the block are 75 varieties. Visiting nurserymen are enthusiastic when shown this remarkable collection.

The Fort Valley, Ga., *Leader* says: "Out at the great Hale orchard things are just humming in preparation for handling the great peach crop now in sight. An additional packing shed equal in size to the new one last year, has been erected and is now filled with finished crates and baskets already labeled for the fruit. A hotel with accommodations for 150 guests is nearing completion and has been christened 'The Red Label' in honor of the red label that goes out on every basket and crate of the Hale peaches. A force of about 100 hands is now on the place and over 400 will be required in the height of the season."

A. C. Griesa & Bro., Mount Hope Nurseries and Orchards, Lawrence, Kan., write: "We see by the June issue that you say that the firm of A. C. Griesa & Bro., has become the Lawrence Nursery Co. We do not see how such an error could have been made. The old firm of A. C. Griesa & Bro., Propr. of the Mt. Hope Nurseries, exists as before, with increased facilities for handling its wholesale trade, in the way of a new office and increased help, and a stock coming on larger, and of as fine growth as we ever grew. The Lawrence Nursery Co., is a branch office for handling agency work only. All communications will be addressed to the old firm."

THE CONVENTION.

(Continued from page 72.)

up, hope springs to the rescue; 3-cent apples, 2-cent peaches, and 5-cent plums cannot continue, and we plant and say we will harvest in a few years when these times shall have faded into the past.

What is the outlet for the product we have and the prospect? Three-quarters of all the trees sold and delivered all over the country are used for joekey sticks, for the browsing of the calf, the pasturing of sheep, for food for apple-tree borers, and a number of ills to which trees are heir; so of all fruit trees grown, not more than one-quarter get to be paying bearing trees. As a large grower of trees I have not laid awake on that subject. Someone must have enjoyment. If the amateur planter wishes to do it, all right. For about one-quarter of what the farmer puts into the ground he expects to get reasonable compensation. It is necessary to have some one to buy trees. What is the outlook for the sale of the fruit we are growing for the millions? Ah, some one says, the market is about stocked, and the business must soon be closed up. Is it? We are meeting in this city to-day as horticulturists, and I doubt if forty miles around us there is grown fruit enough to supply Chicago for a week. Twenty-one years ago this city did not have one-half its present population. Twenty years from now the population of this city will be 2,500,000. And just above here is Milwaukee with 400,000 people. Forty years ago when horticulture began in a number of the states, half a earload of fruit would glut the market. Now earload after earload, trainload after trainload, are poured into the big centres, and they are ready for more. We cannot glut the markets, nor fully supply them for a century to come if the fruit is distributed. In the Miami valley strawberries are grown by the acre, and bought by the bushel. All must have fruit.

The only question now is whether the farmer and the fruit grower can grow produce to secure enough money to buy trees at a reasonable rate. I do not believe it is wise for nurserymen or corporations to plant millions and millions of trees depending upon others to get rid of them. Know what you are going to do with the trees you grow. Don't depend too much on your wholesale trade. The greatest mistake is made when the wholesaler attempts to sell at wholesale to the planter. He is finding out that it is breaking up the whole plan.

Shall we plant or not? I say, plant; but don't plant extravagantly. Cotton planting year before last produced 5 cents per pound. Last year, when we did not plant so much, the price ran up to 9½ cents. Then all planted again and the price has dropped to 3 and 4 cents. When a man tries to grow standard pears for \$100 or less per 1,000 he will be left. If there were fewer put out there would be a better price. It is the same with apples. Not quite the same with cherries. I do not believe any one in the East can afford to grow apples for less than \$40 per 1,000. Let us be careful to see what we are going to do with what we plant.

DUTY OF THE NURSERYMAN.

At the morning session on Thursday, June 11th, Professor H. E. Van Deman read a paper on "The Duty of the Nurseryman to the Fruit Grower." Professor Van Deman urged the nurserymen to be honest and particular in avoiding dissatisfaction resulting from substitution. He said the nurseryman is looked upon as a guide by the fruit grower. The nurseryman should be proficient in the natural sciences. He should be a botanist. He should be familiar with vegetable physiology, pomology, climatic changes and their effect, entomology and mycology. Professor Van Deman made a strong plea for a uniform and correct system of nomenclature, and advocated the propagation of choice varieties. He cautioned against novelties which have not been proved to have merit, but advocated the introduction of new and tried varieties, which have proved to be better than existing varieties. He believes that much harm is done by exaggeration in the catalogue descriptions of varieties, and the untruth-

ful descriptions and promises of nursery agents. He referred to the almost irreparable injury which a nurseryman might cause his customers by the dissemination of stock infested with insects or disease.

NURSERY LANDS OF NEW YORK.

Professor L. H. Bailey gave a valuable talk on "The Nursery Lands of New York State." Professor Bailey spoke entertainingly and instructively of the condition of the soil with reference to nursery stock. He referred to his remarks on this subject at the last meeting of the association. He emphasized the statement that the physical condition of the soil should be looked to more than its chemical condition.

"The chief value of humus in the soil is not to furnish plant food but to make the soil of the right temperature and condition for the occupation of the plant. The best farm soils are those which are loamy. This condition is brought about by the addition of vegetable or animal matter. A sandy or clay loam is subjected to this addition. Most soils are poor because of the loss of humus rather than their fertility. The addition of mere plant food cannot restore common land.

"Commercial fertilizers will not fundamentally correct poor land. Tillage and cropping must be resorted to. This may be contrary to all your previous instruction. But the only proper teaching in the matter of tillage of the soil is experience, not science. I shall give more for the experience of the last 1,000 years than for all the science in the world. The safe man is the one whose desire is not to be consistent with himself, but to be consistent with truth. Beware of the advocate. He is unsafe.

"The best lands for nursery purposes in New York as elsewhere are those which have a pretty heavy foundation of clay. Clay has the least humus and the most native plant food. So it must be thoroughly tilled. A nursery crop is one which remains from 3 to 5 years. During this time we are burning up the humus in the soil and are adding none, adding no roots, sod or manure. If the plant is not happy it cannot grow. I am speaking of apple, pear and plum trees, leaving out of consideration the bushes. Therefore we must have rotation in the use of different kinds of tools and crops. Every famous rotation has had a period of rest, a change of crop. Some land is suitable for consecutive crops.

"It is commonly believed that nursery land will not stand consecutive crops. Yet I know of land upon which plums have been raised in consecutive years for three years. But plums can thus be grown on the same land in consecutive years better than other trees. Now by getting fibre into the soil we get rid of long periods of rest. Manure has been used for this purpose with great success in New York."

There were papers by E. H. Pratt, Fredonia, N. Y., on "Grapes"; "Social Value of Our Conventions" by A. Willis, Ottawa, Kan.; "All But the Corpse Furnished" by J. Jenkins, Winona, O.

IMPROVING THE AMERICAN GRAPE.

George W. Campbell, Delaware, O., read the following paper on "The Agency of Crossing and Hybridizing in the Improvement of the American Grape":

As this is a subject which has engaged my attention for nearly forty years, and as in the natural course of events it cannot be expected that my work shall be much longer continued, I have thought that some remarks upon my labors and observations during that time might be of some interest and benefit to any who may be inclined to experiment thus in the way of improving grapes, or other fruits; as the same methods and principles are applicable to all products of the vegetable kingdom.

I have discovered that improvements can be made in fruits and vegetables, by the intelligent crossing of kindred varieties with as great success, and apparently with as much certainty as similar improvements are made in the animal kingdom, by bringing together different individuals having valuable qualities which it may be desirable to perpetuate or combine, in the production of a race or subjects of higher character and excellence than have heretofore existed. As my experiments have been mainly directed to the grape, I shall confine myself to that fruit for the limited time in which I shall ask your attention.

There is little difficulty in producing seedling grapes of the finest quality very nearly equaling in flavor the best of the foreign or exotic varieties, by crossing our best native grapes with those exotics. Unfortunately, however, hardness of vine and vigorous constitution does not in the first crossing necessarily, or by any means, frequently occur. But there will be occasionally in the same lot of seedlings individuals that resemble, or as we say, "take after" one parent more than the other, the same as in the animal kingdom. Usually with the grape, those which approach nearest to the native parent in habit of growth and foliage will have fruit of corresponding character. On the other hand, in some rare cases, the fruit has been found to partake of the excellence of the exotic parent while retaining largely the health and vigor of the native. And just here is the first important step toward improvement. Several of Mr. Rogers' hybrids were measurably of this type, and have obtained and retain in many places deserved popularity. Their greatest weakness, however, and that which most impedes their usefulness, results from their imperfect blossoms. Mr. Rogers evidently thought the line of further improvement lay in the crossing of his hybrids again upon the foreign varieties, and although he thus produced finer flavor and quality in the fruit, the increased tenderness and weakness of the vines rendered the second crosses nearly valueless.

In my own experience, after producing and testing for many years hundreds of delightful grapes, nearly all were rejected, because they developed some faults or weaknesses which rendered them in my judgment unworthy of recommendation as positive improvements, substantially better in all important respects than others already introduced and in cultivation. These first experiments were what might be called general; making crosses somewhat at random with some of the finer exotics and the most popular natives, also combinations of our best native varieties. The result from these efforts, though interesting and in some instances apparently valuable, were not satisfactory. They did not come up to my standard.

Afterward my whole attention was directed toward the fixed and definite improvement of some of our most popular favorites; such for instance, as a type of the Catawba, without hard and astringent pulp about the seeds, and ripening as the Delaware, with increased vigor, health and hardness of the vine; or a Delaware grape, of larger size, borne upon a strong, hardy and vigorous vine, with heavy, healthy and mildew-resisting foliage; or a Concord or Worden, with firmer berries and finer flavor, possessing better shipping facilities. If these or similar improvements could be made and demonstrated, their value would at once be recognized by every grape-grower in the land.

It is perhaps not desirable to follow the successive steps that led to the accomplishment of one of these contemplated improvements further than to say that after about 20 years working in this direction, always with a definite object in mind, and a pre-determined combination to produce the desired result, I achieved the greatest success in my life, in a really improved Concord that satisfied my most exacting requirements, after the most careful observation and rigid tests for the

past twelve years; a variety having every good point of the Concord without any of its faults or weaknesses. Far more healthy and vigorous in growth, larger in bunch and berry, finer in flavor and quality, firmer in its consistence for handling and shipping, earlier in ripening and later in keeping either on or off the vine. From the first year of its seedling growth to the present time it has positively developed no fault, has never shown a mildewed leaf or rotten grape, and has never been sprayed with bordeaux or any other mixture. That it will always remain so, even in its native home, or always be free from faults in other localities, I dare not say, any more than I could declare that a healthy and vigorous man who says he has "never been sick in his life" would always remain so. I think, however, that all who have grown many kinds of grapevines know that there is a great difference in varieties as to their tendency to rot in their fruit, and their liability to mildew or blight in their foliage, and from its record to this time, I have much confidence that this grape will prove and remain at least as healthy and successful in all grape-growing localities as any of our standard native varieties, for during several of the years of its existence in the same locality, and under the same conditions, other kinds have nearly all rotted and been affected with mildew in its immediate vicinity, while it remained exempt.

I trust you will pardon me for saying in addition that the grape of which I have spoken is the only one of the large number which I have produced that I am perfectly willing should bear my name in its introduction. For I feel entire confidence that it will be recognized as a truly valuable acquisition to our list of American grapes, and worthy of a high position among the best that are now known. Of the many new grapes which have been produced through the worthy efforts of enthusiastic experimenters in past years, Rogers, Ricketts, Caywood, Jacob Moore, Munson and others, it seems surprising that so few have attained extensive popularity for general planting, and seem to have supplanted the Concord, Worden and Delaware, though some of Rogers' hybrids seem to be "holding their own," if not increasing in public favor. Mr. Moore's Brighton and Diamond seem valuable additions and likely to take an honorable position among our standard varieties. Mr. Munson, of Texas, is doubtless the largest experimenter in this line in the Union, and many of his new creations as grown in Texas, are certainly very fine, and we may reasonably look for remarkable and useful additions to our lists when they become more extensively known. The variety which I have tested most successfully, named Brilliant, is very satisfactory, and promises to be among the best red grapes I have grown for general use, and worthy of extensive trial.

I have faith that the good work will still go on, and though permanent advancement may be slow, I feel that it will be sure, and also that it will come through the agency of crossing and hybridizing combinations with the best varieties of grapes now known.

TARIFF DISCUSSION.

At the afternoon session on Thursday, President Wilson brought up the subject of the tariff, and suggested that a committee be appointed to wait upon the ways and means committee of the house of representatives. "The majority of the nurserymen believe that there ought to be a high protective tariff on nursery stock" said President Wilson.

A. L. Brooke: "After conferring with members I wish to make a statement and to follow it with a motion. The Western Association of Wholesale Nurserymen circulated a petition to congressmen west of the Mississippi river. I have the honor to be on the committee having this work in hand. We wrote to senators and congressmen and received replies, but nothing encouraging. When the time comes this committee will be with you. We do not believe in a tariff for tax only, but a high protective tariff. We believe that the tariff has more to do with the low prices than anything else. We in the seed-

ling center of the West are ready to pay double amounts for apple seed if in that way we can raise the price of apple trees. In conversation with my friend, Mr. Rouse, from the East, I learn that the nurserymen of that section are almost universally in favor of a high protective tariff. I move the appointment of a committee of three, in accordance with the suggestion of our president, and that Mr. Rouse be chairman of that committee. Mr. Rouse has had considerable experience in the matter of a nursery tariff."

Mr. Rouse: "I am on committees enough at present. I would prefer that another should take this position."

Mr. Brooke's motion was carried unanimously. Mr. Rouse suggested that William C. Barry, of Rochester, be appointed a member of this committee. "Mr. Barry is a good straight democratic protectionist," said Mr. Rouse.

President Wilson announced the following as the committee on tariff: William C. Barry, New York; J. H. Hale, Connecticut; N. H. Albaugh, Ohio.

GRAPE CULTURE.

E. H. Pratt, of Fredonia, in the discussion of the subject "Grapes," stated that in this country there is a total acreage in vineyards of not far from one million acres, while France has nearly six times as many acres. In locating a vineyard, high ground is generally to be preferred, so that sufficient slope may be afforded to carry off surplus water. Any good, dry soil of sufficient fertility to produce good farm crops is suitable for vineyard planting if climate and exposure are favorable. Deep planting is recommended both for the North and South, as it prevents the roots from being injured by either excessive cold or excessive heat. Grapes exhibit marked variations in the same variety under different conditions of soil and climate. As an instance the writer cited the case of the Empire State, which on the grounds of the originator was vigorous, exceedingly productive, and ripened early, but proved a stupendous disappointment when disseminated, as it was neither early nor vigorous in any other locality. Nurserymen should be exceedingly careful in endorsing new varieties for general cultivation before they have been thoroughly tested in widely varying conditions of soil and climate.

THE EXHIBITS.

The committee on exhibits presented the following report:

D. Hill, Dundee, Ill.; Elgin Nursery Co., Elgin Ill.; and J. Jenkins, Winona, O., made a very elaborate show of evergreens of various sizes.

The Rochester Lithograph Co., Rochester; also the Stecher Lithograph Co., Rochester, gave us a beautiful display of their paintings and lithography.

Horace McFarland & Co., Harrisburg, Pa., showed in an interesting manner their new method of printing and illustrating.

The Neostyle duplicating apparatus exhibited by the Neostyle Co., Chicago, appears to be a machine of some merit.

Benjamin Chase, Derry, N. H., and H. S. Credlebaugh, New Carlisle, O., exhibited samples of tree and plant labels of many sizes and styles.

G. C. Stone, Dansville, N. Y., exhibited twine-looping machinery, which is worthy of examination by every nurseryman.

J. R. Johnson, Dallas, Tex., exhibited 4 plates of Columbian Imperial grape, not yet ripe, but of large size.

Joseph Davis, Brandt, O., showed a sample of clusters of the Eureka Blackcap raspberry in a very good ripened state and of the appearance of value.

J. E. Keller, New York city, exhibited plants of the Spineless gooseberry.

Stephen & Thomas, North Bend, Neb., showed a sample box clamp that evidently has merit.

Albertson & Hobbs, Bridgeport, Ind., and the Alabama Nursery Co., Huntsville, Ala., exhibited samples of natural peach seed.

Samples of moss in bale and bulk were shown by the Elgin Nursery Co.

The Spaulding Nursery Co., Springfield, Ill., showed a sample of twine and burlap.

George W. Campbell, Delaware, O., had several clusters of his new grape, Campbell's Early, on exhibition.

Allen L. Wood had an attractive and graphic exhibit of the Pearl gooseberry.

Convention Echoes.

J. E. Killen represented C. H. Joosten, of New York, at the Chicago convention.

From over the water came E. S. Dickinson, Chatenay, France, and William Fell, Hexham, England, to attend the Chicago convention.

The officers of the Nurserymen's Mutual Protective Association and of the American Nurserymen's Protective Association were re-elected at the meetings of these associations in Chicago last month.

Robert Douglas, the veteran nurseryman, of Waukegan, Ill., was to have read a paper on "Hardiness of Trees and Tree Seeds" at the Chicago convention, but recent trouble with his eyes prevented.

The Spineless gooseberry as shown by C. H. Joosten, New York city, attracted considerable attention in the exhibit room, and many questions were asked regarding it of Mr. Joosten's representative.

J. Fred Lee represented the interests of the Stecher Lithographie Co., at the Chicago convention. The products of this house are well known. He had a large display of plates and plate-books which attracted general attention.

A Rochester member of the association while strolling down State street during the convention week was accosted by a mendicant who asked for a few pennies. "Look here," said the Fower City man, "you get over on the other side of the street. I'm working this side myself."

Among those who attended the meeting of the Chicago Florists club on the evening of the last day of the Chicago convention were: Mr. Harrison, of the Storrs & Harrison Co., Painesville, O.; Chas. J. Malloy, of Ellwanger & Barry; Harlan P. Kelsey, of Kawana, N. C.; J. Van Lindley, of Pomona, N. C.; Prof. H. E. Van Deman.

The Rochester Lithographing Co., was represented at the convention by Marsden B. Fox, secretary and treasurer, who extended his large acquaintance among the nurserymen. His Bismarck apple buttons were in great demand. Nearly every nurseryman added one to the

decorations on his coat lapel, and there were more buttons than badges in evidence.

Edgar Sanders, one of the veterans of the American Association of Nurserymen announced to the convention that there were present nine of those who were at the first meeting of the association in Chicago in 1876. They are as follows: H. C. Windsor, Havana, Ill.; J. J. Harrison, Painesville, O.; Edgar Sanders, Chicago; George E. Meissner, Bushberg, Mo.; Z. K. Jewett, Sparta, Wis.; E. Y. Teas, Irvington, Ind.; A. R. Whitney, Franklin Grove, Ill.; Robert Douglas and P. H. Douglas, Waukegan, Ill.

Prominent among the leading horticultural printing establishments of the country stands the J. Horace McFarland Co., Harrisburg, Pa. The exhibit of this company at the convention in Indianapolis last year, and again at the Chicago convention this year, caused great interest by reason of the remarkable results produced by their Coloritype process. Mr. McFarland himself was at the convention. He was very busy answering inquiries regarding the reproduction of pictures and sketches of fruits and flowers for catalogue work. On the cover of this issue of THE NATIONAL NURSERYMAN is a representation of the Mount Pleasant Printery and a plain statement of interesting facts. In the last issue of this journal appeared a striking illustration of the Coloritype process.

The invitation of the West Michigan Horticultural Society, through O. E. Fifield, the American Association's vice-president for Michigan, to visit St. Joseph, Mich., during the session of the meeting of the horticultural society was accepted by about 35 nurserymen. These left Chicago Thursday night on the steamer City of Chicago, one of the finest on fresh water, with a capacity of 2,000 persons, and upon arriving at St. Joseph made the Hotel Whitcomb their headquarters. At 9 o'clock on Friday morning carriages conveyed the party through a portion of the West Michigan fruit belt. The party drove for three hours through solid orchards of apple, pear, peach, plum, cherry, grapes and berries and all admitted they had never seen the equal. The nurserymen were enthusiastic in their expression of admiration. They attended the afternoon session of the horticultural society and returned to Chicago at night.

Prominent among the representatives of foreign firms in this country is August Rhotert, 26 Barclay street, New York city. He represents some of the oldest and best known nurserymen, florists and seedsmen in Europe. Here is the list: Vilmorin-Andrieux & Co., wholesale seed growers, Paris; Louis Leroy, nurseryman and florist, Angers, France; Edw. Pynaert-VanGeert, hot house plant grower, Ghent, Belgium; The General Bulb Co., growers of Dutch bulbs, Vogelenzang, Holland; M. Koster & Sons, growers of roses, clematis and rhododendrons, Boskoop, Holland. Mr. Rhotert was at the Chicago convention of the American Association of Nurserymen, as usual. He visited a number of western points before returning to New York. Mr. Rhotert makes a specialty of custom house work and shipping and takes import orders on commission for goods of foreign manufacture. He is represented in Paris by Ad. Marsily, 8 Rue Martel.

The nurserymen did not escape experiences with the sharpers for which Chicago is noted. A Wisconsin member of the association sat in the corridor of the Sherman house chatting with another member when a young man stepped up and said, "How do you do Mr. ——— I am glad to see you here." Now Mr. ——— is of a very genial disposition. He is also very obliging. He said several times during the convention, "I came here to meet the nurserymen and make new acquaintances as well as renew old ones. I see many whom I do not know and who seem to know me, and vice versa." So when the young man spoke, Mr. ——— supposed, of course, that he was a nurseryman.

"We have a large meeting this year," remarked the stranger.

"Yes, this is a very successful meeting."

"Well, how are all the folks at home. How is Mr. Hill?"

"O, he is all right."

"How is Mr. Cardigan?"

"Cardigan? O, he is doing well. I saw him the day before I left home."

"By the way, I've got a package I was going to take up to Cardigan. But I'm going East before I go back. Would you mind taking it up to him?"

"Why, I would be pleased to. Where is the package?"

"It is down at a store a few blocks from here. If you are not tired you might walk down with me and get it."

"Certainly, I would be glad to."

The young man and the Wisconsin member started out of the hotel arm-in-arm. At the corner of Clark and Randolph streets the young man said, "I think we had better take a car."

"O, no; if it is only a block or two I can walk."

"But, I have asked a favor of you and I won't ask you in addition to walk this distance. Here is our car."

And before the nurseryman could protest further the couple were seated and bowling merrily in the direction of North Clark street. Block after block was passed and the car was in the vicinity of Polk and 12th streets, famous for dark deeds, when the nurseryman became suspicious. He scrutinized the young man closely a moment and then said: "Look here, young man, I'm going to get off." He signaled the conductor and stepped from the car to the curb where he stood for an hour and twenty minutes thinking. The young man said not a word as they parted.

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No. 67

IN THE GEORGIA PEACH ORCHARDS.

Fort Valley, Ga., July 15.—A two hundred acre lawn of peach and plum stock, as smooth and level as a billiard table—that was one of the sights that greeted my astonished eyes at J. H. Hale's "Edgewood" place, near Fort Valley, Georgia, a few days ago. I had slept over night in a Pullman car in the very middle of a mile-and-a-half square of peach orchard—an experience worth having—had been driven down Connecticut avenue, up Berckmans street, to Delaware avenue, all these wide thoroughfares through trees loaded with peaches, and had watched five "cullud" laborers abreast hold the cultivators which as many mules were drawing toward me down a clean quarter-mile of the new Hale plums in nursery rows.

But great as was the "peach" show and impressive as was the sight of two millions of clean, stocky peach, plum and chestnut trees in the nursery rows, that two hundred acre field, in peach and Marianna stocks, hit me the hardest, I think. Remembering the old days when I followed the budder to tie, I was devoutly thankful that I had drifted into printer's ink, and had no lot or part in those interminable rows to be worked. I looked in vain for a weed. I don't believe there was one to a row. Mr. Hale believes in clean culture, and what he believes he practices.

The occasion of the above-noted impressions was a trip arranged by Mr. Hale and with the courtesy of the Central of Georgia and Southern railroads, to the end that some of us Yankees interested in fruits and trees might see what is being done in Georgia toward making northern markets uncomfortable for the California peaches which are so fair to see and so foul to bite. A dozen bright and lively eastern fruit commission men, from New York, Boston, Hartford, Springfield, Worcester and Providence; a Massachusetts fruit association president and a Connecticut peach commissioner; a couple of ink-slingers—such was the party. Going from New York to Savannah by steamer, we were met in the latter beautiful city by the active and broad gauge president of the Central of Georgia Railroad, H. M. Conner and his general superintendent, Mr. Kline. Two private cars were provided, and how many watermelons were included in the provision I should not like to state! Many of us made our first acquaintance with the Georgia melon where it grows and we absorbed a very great respect for the fruit.

Up through the state we were rapidly whirled, Mr. Comer and Mr. Kline constantly imparting information as to the country as it fell behind us. To Macon and thence to Fort Valley, and out on the spur track which

has been dubbed the "Red Label Railroad," we were taken directly to the orchards of the Hale, Georgia Orchard Co.; on through this ripening crop to visit the orchards of the Albaugh Georgia Co., to be welcomed by the Hon. N. H. Albaugh himself, with characteristic fervor. Back to the Hale place, enjoying in the evening a real plantation minstrel concert by home talent, we spent the night in the heart of the great orchard.

Next morning, after an inspiring look from the top of the central packing-house over the seventeen miles of peach avenues, a sight of the curculio catching gang at work, a rapid glimpse of the "Red Label House," Mr. Hale's comfortable and substantial quarters for some 150 bright young peach helpers, we were taken to Marshallville to see the old and fine Rumph place, where still grows the original Elberta tree, surrounded by thousands of its profitable family. Thence back to Fort Valley, to be met by several officers of the great and progressive Southern Railway Company's five thousand mile system including W. H. Baldwin, Jr., the second vice president, and Captain W. A. Green, the general superintendent. With these gentlemen, a quick run was made out over the Perry branch, passing through another of the great Ohio fruit enterprises, and seeing some enormous young orchards not yet in bearing. Returning to Fort Valley, the most of the party were taken right on to Macon, where an entertaining reception by the Chamber of Commerce was enjoyed, and thence up through the splendid central ridge of the state to Atlanta. Here the Southern Railway took the happy pilgrims in hand, delivering them safe and sound next evening in Washington.

Several conclusions are certainly justified: That the peach planting in Georgia is a success where well managed, paying encouraging profits; that the railroad companies are enterprising and broad minded, giving the peach growers every help in their power; that the nursery interests of the state, extensive as they now are in spots, are bound to become a great factor as they develop.

The wholesale and successful fight against the curculio in the Hale orchards is a notable instance of what pluck and science can do. In April it appeared that the fruit was badly stung, and Mr. Hale determined to trap the active little chaps who were biting into his profits. Think of jarring a hundred thousand trees for the pests often enough to keep them down! A gang of fifty men was organized, each armed with a light but large half-umbrella and a stout cudgel, on the end which a bit of old bicycle tire served to form a striking cushion. The men, one on each side of a tree, held the inverted umbrellas close to the stem, while they gave the tree a sharp rap, then

trotting quickly to the next tree, and so on through the thousand foot rows. The curculio is a sort of a "possum;" so long as he is kept in motion he "lies low," apparently dead; but let the receptacle rest a moment and the insect finds wings to get back to his destructive work. Therefore the gang must keep actively on the move to the end of the rows, where a rest is enjoyed while boys pick out the curculios and drop them into a kerosene bath.

The workers became so expert that they could tap full fifty thousand trees a day, thus getting over the whole orchard three times a week. It was expensive work, that seven weeks' fight, but conservative men, comparing the Hale orchard with the neighboring one in which the little bug has been allowed to have its own way, estimate that Mr Hale has saved nearly \$20,000 worth of his crop by his prompt and persistent work. As a comparative experiment on a gigantic scale, the thing is interesting and valuable, more especially as one notes that the fruit being marketed from the great orchard in which the curculio was not fought is not equal in quality and grade to that which is shipped by the Hale company under its well-known "red label."

J. HORACE MCFARLAND.

INDUSTRY GOOSEBERRY IN AMERICA.

Hexham, England, July 1.—At the meeting of the American Nurserymen's Association held at Chicago on June 10th and 11th a question was asked by Mr. Kellogg as to whether any gentleman present could give an instance in which the Whinham's Industry gooseberry had been a success.

I had the pleasure of being present when that question was asked, but unfortunately did not hear Mr. Kellogg's question as applied to the Industry gooseberry; otherwise I would have attempted to answer at the time. With your permission I will now attempt to answer Mr. Kellogg's question.

I have seen the Whinham's Industry gooseberry grown and fruiting in America as well as we can fruit it in England, as far south as Bloomington, Ill., in the grounds of Dr. Schroeder, and this season I saw it bearing a good crop of fruit in the grounds of the Green Nursery Co. of Rochester, N. Y. And Mr. Perkins of Jackson & Perkins, Newark, N. Y. informed me when at the convention that he had half an acre of Industry planted out near Grand Rapids which is bearing a splendid crop of fruit this season.

On my return home from my American trip, which I am pleased to say has been of a successful and pleasant character, the Newcastle-on-Tyne *Daily Chronicle* of that date, namely, June 27th, was placed before me, containing an article on this gooseberry and its origin which I consider a very accurate and reliable account, hence take the liberty of sending it to you and shall be pleased if you can find room for same in your popular journal, THE NATIONAL NURSERYMAN.

The 200 tons of unripe Industry gooseberries which the writer estimates has been the annual sale of this item from Morpeth does not represent the entire tonnage, as to this must be added a very large tonnage sold when ripe.

Since reading this article I have consulted one of our largest market growers at Hexham and he considers that fully 100 tons of fruit of this variety are grown and sold at Hexham on the average every year. Each ton as referred to contains 2,240 pounds.

WILLIAM FELL.

INDUSTRY GOOSEBERRY IN ENGLAND.

There are few persons in the North of England who are not acquainted with "Whinham's Industry." Certainly there is not a single gardener in the northern counties who is not familiar with the name, and who is not aware that "Whinham's Industry" gooseberry is not only one of the most prolific but one of the best now in the markets of England and Scotland. It takes its peculiar cognomen from the man who propagated it—Mr. Robert Whinham of Morpeth, Northumberland, himself a market gardener at that place. He lived in the quiet, sequestered town in the early decades of the present century. He was a typical Morpethian. From a young man he showed he was possessed of an original turn of mind. Ambitious, and even venturesome he, prior to settling down, had a somewhat rough experience in the early days of colonization in North America. Before his American experiences he had given much attention to the raising of seedlings. On his return, he devoted a great deal of time to this difficult department of gardening. After many fruitless attempts, he produced the gooseberry to which, in his just pride, he gave his own name. It is thought he obtained it from a variety known as the Rifleman. Whinham knew he had a good thing in his new variety of gooseberry, but he was unable to convince others of its qualities as speedily as he had expected. His time, talents and energy seemed to have been wasted. His end was less comfortable than it might have been. He lies buried in Morpeth churchyard, but it is greatly doubtful if anyone can point out the exact spot. Seeing that the result of his discovery of the variety of gooseberry which bears his name has brought, and still brings, large sums of money to northern gardeners, it would be a becoming thing on their part if they were to institute some memorial of him in his native town. His gooseberry is scarcely likely to be superseded.

"Whinham's Industry" gooseberry is a very vigorous plant of an upright character. Its upright foliage securely protects the blossoms from the frosts of early spring. This characteristic gives Whinham's a decided advantage over other sorts. The berry, large quantities of which are now placed almost daily on our northern markets, is of more than the average size. Used in their green state they can be quickly pulled, packed into sacks, and readily and cheaply conveyed long distances. The berries are in

great demand with the preserving firms both here and in Scotland. It is estimated that in an average season not less than 200 tons of green fruit will be sent from Morpeth alone. There is also a big demand for young bushes from America, where they seem to grow well. The Whinham variety is indeed a huge cropper. In its native northern county it continues to bear fruit even in its old age. There was until lately, if there be not now, a bush in Whinham's old garden at the Allery Banks, Morpeth, which could not be less than 50 years of age, and yet up till now it crops well. This old bush would doubtless be one of Whinham's original stock.—Newcastle (Eng.) *Daily Chronicle*.

INFLUENCE OF STOCK UPON SCION.

A writer in the *Gardener's Magazine*, London, arrives at the following conclusions upon the subject of influence of stock upon scion :

"There is, ample evidence that the stock can, and does influence the scion, in every possible way and in every degree, from the root to the seed; but there is much doubt as to the permanence of this influence in a large proportion of cases. It is also established that the stock has a greater and more lasting effect on the scion, when it is allowed to bear its own leaves and growth. This point raises far-reaching suggestions as to the explanation both of the process in general, and of the exceptional manifestations of it.

"A further general conclusion that will be readily observed from the above classification of the cases (which is a perfectly natural and obvious one) is, that the facility with which a plant may be influenced in any particular way by grafting is in inverse proportion to the degree of development or specialization of that part of it which it is desired to effect. Another conclusion (so far as the facts at present go) is that the more highly organized the parts of a plant influenced are, the less likely are such alterations, when induced by grafting, to prove permanent.

"There are two other conclusions or inferences suggested by some of these cases, and by a consideration of the probable processes by which they are brought about. One is, that the nearer the graft is made to the actual inflorescence, or final point of growth of the stock, perhaps also of the scion, or both, the more likely is the resulting flower or fruit to be a blend of the characteristics of the two varieties. The other suggestion is, that, where possible, if the grafting be done at the time when the stock (and also the scion) is forming the flower and fruit bud for the following year (grafting as before close to the bud) there is every reason to expect that the effect on the fruit would be more certain. In most cases the flower and fruit is fully formed in embryo in the bud, and as this is the time when the particular characteristics are being implanted this should also be the time when the stock ought to have the most direct influence on the fruit.

"If some one interested in the subject, and having the opportunity, would graft the blossom buds of, say, one

distinct variety on to another distinct variety of pear tree, he would be able to record the result in less than a year. Pear buds have been thus grafted for the purpose of supplying vacancies on an unfruitful tree, but apparently the same variety was employed, also roses. With regard to the second suggestion, careful experiments are especially desirable to obtain information as to the comparative results of grafting at different periods of the growth of the plant. At present grafting is always done at the time when the graft 'takes' easiest and quickest, and with respect to that consideration alone. But grafting, though less easy, may be successfully performed pretty nearly all the year round if the requisite conditions of warmth and moisture are maintained. The possibility of grafting blossom or fruit buds during the autumn months has been pointed out so long ago as 1812 (Trans. Hort. Soc., vol. ii. p. 7), so that there is no inherent impossibility in the suggested experiments, and they would certainly prove of interest even if they failed to produce the expected results "

Foreign Notes.

It is estimated that 300,000,000 narcissi bulbs flowered this season in the largest of the Scilly Isles, which has a circumference of but nine miles.

The Veitchian medals for 1896 were presented at a meeting of the Royal Horticultural Society held at the Drill Hall on Tuesday, June 9th, by Sir Trevor Lawrence, Bart. The recipients this year were Henri L. de Vilmorin of Paris; Professor Sargent of the Arnold Arboretum; F. W. Burbidge and Malcolm Dunn.

The apple crop in England and Germany will be considerably less than that of last season. There is promise of a good demand for the American crop at all European points. The English pear crop will not be large, with the exception of Williams (Bartlett). As to plums England and the continent do not promise large crops; Germany has a moderate crop and Belgium, Holland and France report short crops. There is no English or continental production of peaches.

"The present confusion in the nomenclature of orchids is almost a scandal," writes the Right Hon. J. Chamberlain, M. P., in the *Orchid Review*, "and threatens to be quite intolerable as the number of hybrids and so-called varieties continually increases. I had hoped that something would be done by the orchid committee of the Royal Horticultural Society to bring order out of chaos; but it seems to me now that they are among the worst offenders."

Those who would enjoy fruit fresh from the tree in the month of October should plant the new cherry, Hochgenuss von Erfurt, writes a German horticulturist. The tree is a vigorous grower, with a round crown; and the foliage is large and dark green in color; the fruit is rather large, of a shining light red color. A peculiarity of the variety is that ripe, half-ripe and quite green fruits are found on the tree at one and the same time, so that ripe fruits can be gathered for a period of five to six weeks.

Sankey & Co.'s wonderful flower pot factory at Bullwell, near Nottingham, England, has an output of 60,000 pots a days, and 250 hands are working at high pressure in order to keep pace with orders. When the business was started in 1853, 2,000 represented the daily output of pots. The firm has taken up forty acres of splendid pot earth and spent some £20,000 on works, sheds, machinery, etc., so that its equipment is well-nigh perfect. The pottery has a railway siding of its own. Within eighteen months one grower alone took 2,000 truck loads of ten-inch pots. The stock in hand varies from one million to three millions. This pottery, it is claimed, is the largest in the world.

Among Growers and Dealers.

John Charlton, Rochester, started for England on July 14th.

Morris, Stone & Wellington, Toronto, offer Wickson plum buds.

P. J. Berckmans, Augusta, Ga., has been on a New England trip.

E. T. Dickinson, Chatenay, France, called upon Rochester friends last month.

H. P. roses and climbers on own roots are offered by George Brothers, East Penfield, N. Y.

Baltimore Belle, Queen of Prairies on own roots are offered by C. L. Yates, Rochester, N. Y.

William E. Rossney, Bloomington, Ill., visited relatives and friends in Rochester last month.

The firm of G. Onderdonk & Co. has assumed the business of G. Onderdonk, Nursery, Texas.

An opportunity is offered in this issue for a firm to sell its force of retail agents at a good price.

Fay's currants, one and two year, are offered in large quantity by F. H. Burdett, Clifton, N. Y.

It is said that Charles A. Green, Rochester, paid Jacob Moore, the originator, \$1,250 for the control of the Red Cross currant.

S. B. Willard, Geneva, N. Y., claims to have grown three quarts of fruit to the bush from two-year plants of President Wilder currant.

Leonard Coates, Napa, Cal., refers to *Prunus Simoni* as the Simon plum, and very pertinently asks why the peach is not called *Persica vulgaris*.

Among the callers upon Western New York nurserymen last month was Silas Wilson, Atlantic, Ia., president of the American Association of Nurserymen.

Peach trees, June budded; plum and apple trees, asparagus roots and strawberry plants in season are offered in large quantities at Harrison's, Berlin, Md.

Ellwanger & Barry, Rochester, say that the Crimson Rambler rose has exceeded their expectations. The plants stood a test 15 degrees below zero last winter.

The Old Colony nurseries, Plymouth, Mass. are well to the front with a choice supply of ornamental stock. The proprietor, T. R. Watson, has an attractive list in another column.

George Aeheles, West Chester, Pa., makes a specialty of Silver maples, Norway maples, Carolina poplars, peach trees, and apple trees. He also has a general stock of fruit and ornamental trees and shrubs.

The name of Z. K. Jewett & Co., is indissolubly connected with small fruits, as the result of persistent advertising. Nurserymen in want of small fruits know that the Sparta nurseries can supply them.

The vice-president of the American Association of Nurserymen from Wisconsin is George J. Kellogg, Janesville. Mr. Kellogg took an active part in the convention proceedings and helped to locate the next meeting.

John A. Young, Greensboro, N. C., is the introducer of the Greensboro peach, buds of which he is now offering. This is the June peach, earlier and larger than the Alexander. In another column he makes a statement of interest.

A. L. Brooke, North Topeka, Kan., secretary of the national transportation committee, says that the Western Association of Wholesale Nurserymen has secured a return to the old freight rates, viz: class B for all carloads with a 20,000 minimum. This took effect on July 15th.

John Charlton, Rochester, N. Y. is the special agent for the Columbian raspberry, the king of cap berries. Over 25,000 quarts were sold last year, netting 8½ cents per quart. There are fourteen acres of transplants for full sales. For next spring there will be ready 500,000 tip plants.

Samuel M. Bayles, the old and well known nurseryman of St. Louis, died in Texas July 1st. The body was taken to St. Louis for interment. The funeral took place on July 3d from his late residence, 4,390 Lindell Boulevard. A large number of florists and nurserymen were in attendance.

Buds is the burden of the song of that well known horticulturist R. Morrill, Benton Harbor, Mich. Nurserymen and fruit growers gen-

erally, long ago learned to listen attentively to any statement by Mr. Morrill. In another column he has something to say of interest to all nurserymen who need buds.

Recognized as headquarters for apple seedlings, F. W. Watson & Co., Topeka, Kan., have always a steady demand which keeps them busy in supplying. These may be obtained at Watson's in any quantity and the grade is guaranteed high. As to prices they agree to make them as satisfactory as the goods.

J. G. Harrison & Sons, Berlin, Md., have purchased a small farm of 65 acres, especially adapted to the growth peach trees, a red clay loam where peach have not been planted. They have now 200,000 peach, one year, principally extra grades, and 150,000 June-budded trees, and more than one million peach to bud for fall, grown from natural seed.

Steadily and surely the Storrs & Harrison Co., Painesville, O., has attained a leading position among the nurserymen of the world. Their large and complete assortment is drawn upon from all sections and satisfaction is universally expressed. Only words of praise can be spoken for the conscientious business principles which characterize this company's dealings.

A. Willis, Ottawa, Kan., one of the best known of Western nurserymen, has an assortment of nursery stock which should meet any demand. Mr. Willis is active, enterprising and thoroughly reliable and his success is indeed merited. He has Houghton and Downing gooseberries, currants, Concord and Ives seedling grapes, apple stocks and a general nursery line.

W. Atlee Burpee has secured from Luther Burbank two of the latter's creations, a new poppy and a golden mayberry. The poppy resembles the *Papaver ambrosium*, but instead of having the lining of crimson with dark blotches near the base of the petals as has the common variety, the new flower is lined with pure silver, the crimson and black showing faintly through. It will be named the "Silver Lining."

The twentieth annual meeting of the Georgia Horticultural Society will be held in Griffin, Ga., August 5th, 6th and 7th. The past work of the society has caused a wonderful development of the fruitgrowing industry, which of late has given several sections of the state a most rapid increase in its land values. The officers are: P. J. Berckmans, president, and L. A. Berckmans, treasurer, both of Augusta, Ga.; G. H. Miller of Rome, Ga., secretary.

A. M. Smith, St. Catharines, Ont., says of the prospects of the fruit crop in the Niagara district: Plums 75 per cent.; fruit buds of Japan and tender sorts hurt by winter frosts; pears, Bartlett and Kieffer 100 per cent. a good many other varieties light, not more than 60 per cent. on the whole; peaches, excepting in the Grimsby section, very light, not more than 25 per cent.; grapes promise well where vines were not injured by last year's frost, probably 80 per cent.; apples better than they have been for years, 100 per cent., except perhaps on Spys which are light in places.

George J. Kellogg, Janesville, Wis., says: "Am very sorry we have lost all our Crimson Rambler for two winters, and the same is true of other growers in Wisconsin. We never got a bloom in the two years we planted a dozen strong plants and petted them all they deserved. We have no trouble in wintering the H. P. roses and some of the more tender classes. We have 60 varieties of roses and should be glad to add the Rambler to our collection, but we have no faith in wintering them out of door with the best of protection. Our grounds were in nice condition for wintering and we lost hardly anything else in the rose department."

The advertisement of the Rochester Lithographing Co., Rochester, N. Y., in THE NATIONAL NURSERYMAN has produced such results as to warrant that company in increasing the advertisement this month from a quarter to a full page. The Rochester Lithographing Co., has found it necessary to enlarge its accommodations to meet the demand for its work, which has increased in an unusual manner during the last few months. This company has earned a reputation for lithograph work of the highest class. At the Chicago convention nurserymen saw samples which convinced them of this fact and many orders were booked. It is due this firm to acknowledge the success of honest effort well directed. They justly claim to make the best fruit and flower plates and are constantly adding new varieties to their list. They make both hand painted and lithographed plates and supply plate books, nurserymen's printing, catalogue covers and inserts.

E. G. MENDENHALL.

The subject of this sketch was born in Bath, England, October 18, 1846. He came to the United States at the age of 6, his parents settling in Cincinnati where his father was a prominent map and book publisher, and conducted for 30 years a book store where congregated such well known horticulturists as E. J. Hooper, Nicholas Longworth and Dr. Warder, of the old Cincinnati Horticultural Society. At the age of 15, E. J. Mendenhall entered the 5th Ohio Cavalry in 1861, serving in that regiment for over four years, advancing from private to first or orderly sergeant. The latter position he held at the end of the war, though only 19 years of age. At the mustering out of his regiment he brought his company home.

Mr. Mendenhall traveled for 20 years after the close of the war as a general western agent on a salary for a manufacturing firm in Worcester, Mass. At that time he had fruit interests in Southern Illinois at Kinmundy, mostly in growing strawberries.

Some twelve years ago, desiring to quit traveling entirely and a local nurseryman at his present town having gone out of business, he decided to step right in and continue a home nursery in connection with fruit growing. While as in other lines of business he has found its ups and downs, he likes the work. For six years now he has been secretary and treasurer of the Southern Illinois Horticultural Society, which has been successful and has as large a membership as the state society. In May, 1895, Mr. Mendenhall started to publish a strictly horticultural paper known as *Our Horticultural Visitor*, and from what we hear of it, he has been scoring a success.

A Crescent, Ia., correspondent of the *Rural New Yorker* says that a raspberry called the Redfield is considered in the West hardier than the Columbian and in size of fruit nearly equal.

The Oswego County, New York, Strawberry Growers' Association, by suggestion of Professor Lodeman of Cornell, held its first strawberry show at Oswego, June 19. The most profitable sorts appeared to be Bubach, Parker Earle, Gundy, Beder Wood, Marshall, Edgar, Queen and Splendid. The largest berries shown were Marshalls. Very few Wilsons, Crescents or Warfields are grown. L. J. Farmer of Pulaski was the largest exhibitor, having 68 varieties. Professor Lodeman suggested that next year each exhibitor have cards for each variety stating nature of soil grown in, mode of cultivation, yield per acre, and prices received.

WEATHER CONDITIONS IN ENGLAND.

Hexham, England, July 1.—William Fell & Co., Royal Nurseries, have taken the following notes:

In the early part of the spring we suffered very much for want of rain, especially young transplanted stuff, but have now had some splendid rains, doing much good to vegetation in general. Further south the crops have suffered much from the excessive dry weather. Our thermometer readings are this spring far above the average. We give the highest readings in the following months: April 25th, 64 degrees in the shade; May 11th, 12th and 13th, 78 degrees in the shade each day; June 15th, 88 degrees, and June 16th, 92 degrees in the shade.

This is the highest spring reading for over twelve years. The remaining days of June were exceptionally warm, averaging 70 to 78 degrees in the shade and very sultry, but, on the whole, everything has this season grown rapidly and fruit crops are also very good, especially early potatoes which have benefited by the warm weather experienced.

MICHIGAN LAW.

While the matter of the inspection of nursery stock brought into Michigan from other states was under discussion at the recent meeting of the Michigan State Horticultural Society at St. Joseph, Mich., a committee was appointed to formulate and report resolutions which would represent the opinion of the society upon the subject. This committee reported the following resolutions, which were adopted by a unanimous vote:

WHEREAS, The State of Michigan is fast becoming one of the foremost states in the Union in the production of the various kinds of fruit; and,

WHEREAS, The introduction of the numerous deadly and injurious insects and fungous diseases which prey upon the fruit trees and vines is fast becoming a menace to the industry; and, considering that many of the other fruitgrowing states have enacted laws for their protection, therefore be it

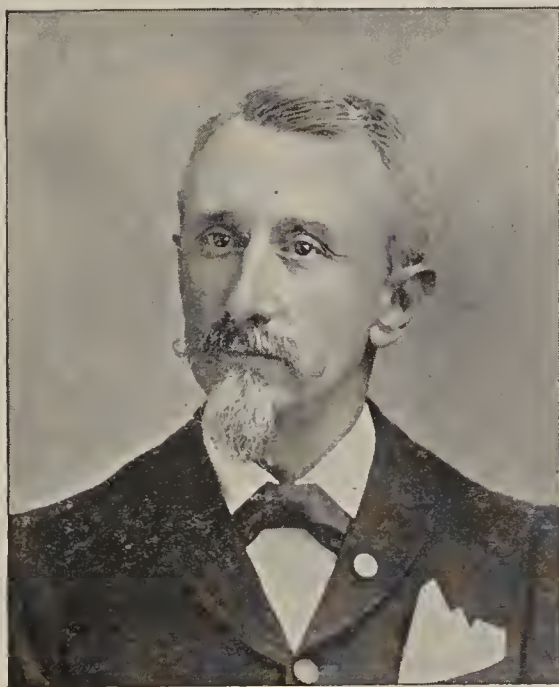
RESOLVED, That a committee of three be appointed to procure the necessary information and draft a bill providing for the proper guarantee or inspection of all fruit trees and plants introduced into this state from others, or from abroad, as well as a proper inspection of those grown at home, said bill to be presented to this society at its next annual meeting for its consideration, after which we shall endeavor to procure its enactment as a law.

STRONG PRAISE FROM A HIGH SOURCE.

THE HOOVER & GAINES CO., DAYTON STAR NURSERIES, DAYTON, O.—“THE NATIONAL NURSERYMAN is all right as an advertising medium and indispensable as a valuable trade paper.”

DO NOT WANT TO MISS IT.

BRYANT BROTHERS, DANVILLE, N. Y.—“We like the style and character of THE NATIONAL NURSERYMAN and do not want to miss it. Enclosed find \$1.”



E. C. MENDENHALL.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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One year, in advance,	- - - - -	\$1.00
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Payment in advance required for foreign advertisements.

 Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Entered in the Post Office at Rochester, as second-class matter.

ROCHESTER, N. Y., AUGUST, 1896.

TO IMPROVE CONVENTIONS.

It was generally remarked at the Chicago convention that the address by Professor Bailey was one of the most valuable addresses to the nurserymen that have ever been given at the conventions. And here lies a suggestion that it seems to us should be studied. Why should not the American Association provide more addresses of such a nature for the annual meetings?

There are available other distinguished authorities whose presence and advice could be obtained and in this way the members would feel that they had indeed been benefited by instruction not otherwise readily secured. Well-directed questions would bring out a discussion which would make the reports of the proceedings invaluable, and the papers and addresses by these experts would in this way be doubled in detail and adaptability to all sections of the country.

It is true, this plan would entail some expense; but how could the funds of the association be put to better practical use. Certainly such a plan would in the end prove more satisfactory than a sail on a lake, which by the way is all very well in lieu of anything better.

At the recent mid-summer meeting of the Wisconsin State Horticultural Society, at Waupaca, Professor Goff, of the University of Wisconsin, delivered an address in which he touched upon this subject. He said:

While, in this paper, I certainly do not desire to displease anyone, I incline to fear that some sensitive people may possibly feel a little hurt. If so, I ask your kind forbearance, and that you will at least believe that these criticisms are offered because they are supposed to tend toward the greatest good for the greatest number.

The title of this paper suggests that, at least in the opinion of the writer, our society is not in all respects what it might and should be. The question under consideration is, "How can we improve our society?" It should be our aim to make this society as interesting and profitable to its members as it is possible to make it, and we should be content with nothing else.

I suggest first, as perhaps most important, we can improve our society by raising the standard of the papers presented at our meetings. The custom of inviting local societies to send a delegate requiring such delegate to present a paper, when we have no knowledge as to who the delegate is to be, and no assurance that the so-called paper is worth the time of your society, or the space required to print it in our transactions, is to be deprecated. Such papers are all right for local societies, but with rare exceptions, they are out of place in the meetings of a state society. What inducement has one to travel fifty or a hundred miles to attend a state meeting, if the papers presented are not of a higher order than those of the average local society? But you will ask "How can we do this?" One way will be to use some of the money now paid for delegates' expenses to procure papers from specialists from our own and other states, upon subjects in their chosen lines. A paper by Robert Douglas on evergreens, by Jackson Dawson on propagating trees and shrubs, by William Falconer on ornamental shrubs, by Professor Bailey on plant breeding, by Professor Van Deman on orchard fruits or by Mr. Galloway on fungous diseases, would do more to raise the standard of our transactions than many times the cost paid as expenses for delegates of local societies. It may be doubted by some if such men as these can be procured. If you look through the published transactions of the Western New York Horticultural Society, you will find that they abound in papers written by this class of men; yet this society receives no state aid, but is entirely supported by the voluntary contributions of its members. Men of this class are not so difficult to secure, as is often supposed. I know the Department of Agriculture has sometimes paid the expenses of its workers to the meetings of the Western New York Horticultural Society when requested to do so.

In writing this I would by no means ignore the fact that we have specialists among our members, and that these have from time to time presented excellent papers at our meetings, but it is quite as true that we need to broaden the field from which we draw our supply of useful information that it is the chief office of this society to disseminate. We should hear more from the specialists of the other states. I do not mean that we should use no home talent that does not fall in the category of the specialist. A paper from an obscure cultivator may have more real practical value than one from a learned professor. We should insist however that every paper should contain some useful knowledge, and should be written by one who feels that he has something to say on his subject, rather than by one who feels that he has to say something. With rare exceptions, a paper that has nothing to commend it except that it is entertaining is out of order on the programme of a state horticultural society.

Every session should have at least one paper by a man of national reputation, whose testimony in his special field will be so valuable that our horticultural workers can not afford to lose it. When this good time comes, we shall not need to pay the expenses of our members to induce them to attend our meetings.

NEW PRODUCTIONS OF MERIT.

We call attention in this issue to several new productions in fruits and flowers which have been endorsed by those whose opinions are entitled to much consideration. We shall be pleased to publish the results of observation on the merit of new varieties by our readers and cordially solicit reports. While there is a proper objection to the advocacy of novelties which have not been tested or which have been proved to be of doubtful value; there is a demand for reliable information upon new varieties which have proved valuable.

Space is given, also, to a defense of the Industry goose-

berry, an arraignment of which was made at the Chicago convention. George J. Kellogg at the convention said: "I would like to know if any one here has had success with the Industry gooseberry." William Fell, of England, has made answer both as to growth in this country and in England. It is important to have this testimony in view of the widespread advertisement of this gooseberry.

INSECT LEGISLATION.

We publish the text of the Maryland and Virginia laws, of special interest to all who ship stock into those states. There was a very general desire expressed at the Chicago convention for information concerning the laws of the several states in so far as they affect nurserymen. THE NATIONAL NURSERYMAN has supplied much of this information. Following are the dates on which articles concerning the subjects mentioned appeared in this journal: California laws, April '93, March '94; Caminetti bill, November '93; Washington laws, February '93, January '95, May '95; Minnesota law, December '94; Oregon law, July '95; legislation on insects, April '94, May '94, August '94; San Jose scale, April '95, July '95; peach yellows, November '95; nurseryman's guarantee, June '95.

CUMBERLAND RASPBERRY.

David Miller, Camp Hill, Cumberland county, Pa., sent us samples of his seedling black raspberry, the Cumberland. It is easily the largest black raspberry we have ever seen. It is fine firm fruit and yet juicy and of excellent flavor. All that could be desired in the black raspberry seems to be embodied in this. Those who saw the samples here were enthusiastic in praise of it. Mr. Miller says:

It originated with me some eight years ago, and while it fruited annually since and I saw superior merit in it, I paid little attention to it, not being in the berry business. But for some years it has attracted considerable attention, so that I gave it more attention and propagated it some. The reckless manner in which the country is flooded with novelties, or better say humbugs, as they usually have the majority, made me hesitate to move in the matter, as I had not seen all the black raspberries in the world.

To settle my mind on the matter, I sent a few yearling plants last spring to J. W. Kerr of Denton, Md., and to Amos Miller of Columbus, O., the latter the originator of the Cumberland Triumph Strawberry. Both fruited. Mr. Kerr was wild over it, reporting berries $\frac{1}{2}$ of an inch in diameter. Amos Miller reports: "Highly promising and deserving extensive trial." I also sent fruit to various parties and the reports are very flattering.

L. H. Bailey of Cornell University, reports: "By odds the finest I ever saw," and the same answer comes from Parry of New Jersey, Slaymaker & Son, Dover, Delaware; Atkinson of *Farm Journal*, etc.; so I have now decided to risk my reputation on it. The berries sent are fair samples individually, but I could not give good clusters, as they are about over.

J. Horace McFarland, Harrisburg, Pa., says:

On June 23d I first saw this berry at Mr. Miller's farm, where a patch of fully a half acre was just ripening. The enormous size and peculiar shape of the blackcap was at once remarked by a party of fruit growers,

including Eli Cocklin, the noted Pennsylvania peach grower, and Gabriel Hiester of the Pennsylvania State College. Comparisons were made between the new raspberry, which it was then determined to call "Cumberland," and other well known blackcaps, all of them being very greatly in favor of the new berry. On June 27th Mr. Miller brought me several clusters of this berry, which I took with me to New York, and from thence to Savannah via steamer. The berries kept in good shape during the entire trip, and were firm on Tuesday, June 30th, though fully ripe when handed to me on the 27th. On July 9th a specimen cluster was again seen. This cluster contained 27 berries, of which none fell under $\frac{1}{2}$ -inch diameter, while several were nearly three inches around.

To-day, to my astonishment, I found Mr. Miller selling this fruit in the market, and obtained from him a quart box, among which were many berries of $\frac{1}{2}$ -inch diameter and several one-inch diameter. As I compared them with Wilson blackberry of fair size the difference was in favor of the Cumberland!

With ordinary culture the shape of the berry is thoroughly distinct from that of any other blackcap I have ever seen or heard of, it being characterized by a conical point. In flavor it is excellent, there being less of the wild taste than usual among blackcaps, and mildness and freedom from acidity which makes the berry more than usually attractive on the table.

CAUSE OF UNUSUAL BLIGHT.

Janesville, Wis., July 15.—Is there any new thing learned about blight? Transcendent crab, usually one of the worst to twig blight, is almost free of blight and heavily loaded with fruit. Now, is it not because the flow of sap is to sustain this burden of fruit that it is not blighting? Yellow Transparent is heavily loaded with fruit and one tree is blighting badly, while the others are free, these are standing in grass and are not kept too rich. There is more blight on McMahon, Fameuse and Wealthy than usual. Where the trees are open to the prevailing south winds there is less blight than where there is any wind break.

In all my examinations I have found but one borer in the blighted twig and I do not find, as one other writer says, much of the blight is caused by the twig borer. I do not agree with Downing that fire blight is caused mostly by frozen sap in the fall.

I find blight worse on rich soil, in orchards on low ground and surrounded by wind breaks, but this year it is unusually bad on high locations. Varieties free from blight are Oldenburg, Peerless, Wolf River, N. W. Greening, Peach apple, Haas, Glass Green, Fall Spitzenburg, Flushing Spitzenburg, Virginia crab, Shield's crab, Martha crab and Whitney, No. 20. And we have thirty other varieties that are blighting badly in nursery and orchard. The worst of these are among the Russians, although Talman Sweet, Golden Russet, St. Lawrence and many other of our standard varieties are more or less affected. I do not believe there is any relief in pruning and burning, unless it is done while the blight is in the early stages of its development.

It seems to be caused by an over-abundant flow of sap in the sultry weather of May and June, a sort of apple apoplexy. The only remedy I see is to get up on higher ground and weed out the varieties that are disposed to blight.

GEORGE J. KELLOGG.

VIRGINIA SCALE LAW.

William B. Alwood, entomologist of the Virginia Agricultural Experiment Station at Blacksburg, recently issued a bulletin in which he says:

Virginia has the unfortunate notoriety of being the state in which this insect was first discovered on the Atlantic seaboard. However, from present appearances, this state is not nearly so badly infested as several of our neighboring states. If this be true, it is a peculiarly fortunate circumstance, and cannot be attributed to superior care or foresight on the part of our people. For it is now (March, 1896,) nearly three years since this scale was first located in this state, and until quite recently very little public interest in regard to the great damage threatening our fruit industry, from its possible spread, has been manifested. I cannot better express the serious nature of this pest than by quoting from Howard and Marlatt, that "there is perhaps no insect capable of causing greater damage to fruit interests in the United States, or perhaps the world, than the San Jose or pernicious scale."

In March, 1894, this insect was discovered at Riverside, Md., a large peach orchard being seriously infested. From this time other localities were rapidly added to the list, until it was definitely known that Massachusetts, New York, New Jersey, Pennsylvania, Indiana, Delaware, Virginia, Georgia, Alabama, Florida, Louisiana, Mississippi and Ohio were infested.

This widespread infection in the middle and North Atlantic and inland states was practically traced to Parry and Lovett nurseries in New Jersey. The history of the introduction of the scale into these two nurseries is, that during 1886 or 1887 they brought from California a stock of Japanese plums, which were then being introduced to America. These plants were undoubtedly infested, but the nature of the trouble and the probable consequences which would flow from it were unknown to the introducers. It appears, however, that they were aware that the stock was unhealthy, and, after propagating it, had it destroyed.

It now appears that there are a number of infested nurseries in the Eastern United States. According to Howard and Marlatt, the following states have nurseries in which the scale is more or less prevalent, viz.: Massachusetts, New York, Indiana, Georgia, Florida, Alabama, Mississippi, Louisiana and possibly Missouri.

So far as we are aware, the nurseries in Virginia are not infested. At present but two localities in this state are definitely known to be infested with the scale. These are the infested district at Charlottesville, the limits of which have not yet been determined, and an orchard near City Point, Va. This latter point of infection was first determined by me through specimens received in June, 1894, from R. B. Batte, of City Point.

The whole orchard contains about 18,000 trees, and some 2,000 were affected. We visited the orchard and found the infested area to be restricted to young stock recently received from New Jersey. Many of the trees

were so seriously attacked that no treatment could possibly effect a restoration. We were unable to find that the scale had spread to the older plantations.

Thus it appears that this scale has been present in the East for years; that several nurseries have been distributing it upon stock for at least seven years; that fourteen states are infested, and from the facts before us in all probability twelve nurseries in the states above mentioned are infested, and have been or may become centers of distribution of the insect.

Following is the Virginia law regarding the San Jose scale:

An act to eradicate the San Jose or pernicious scale, a disease affecting fruit trees, and to prevent its spread.

Whereas the fruit industry in Virginia is threatened with serious and irreparable damage by a disease known as the San Jose or pernicious scale, now at present in some parts of the state; therefore,

1. Be it enacted by the General Assembly of Virginia, That the Board of Control of the State Agricultural Experiment Station be, and is hereby, empowered and directed to take immediate action to suppress and eradicate this insect.

2. The said board is hereby authorized and required to designate a member of the scientific staff of the Agricultural Experiment Station to act as an inspector under the provisions of this act, and it shall be the duty of the said board to promulgate at once rules and regulations in accordance with this act for the government of the said inspector in the duties devolving upon him in the execution of the provisions of this act; and the said board may further employ temporarily an assistant by the day for the purpose of executing the orders of the inspector in regard to the treatment of the infested plants.

3. The inspector shall have power under the regulations of the said board to determine whether any infested plants are worthy of any remedial treatment, or shall be destroyed; and he shall immediately report his finding in writing, giving reasons therefor, to the owner of the infested plants, his agents or tenants, and a copy of each such report shall also be submitted to the said board. In case of objection to the findings of the inspector, an appeal shall be to the said board, whose decision shall be final; an appeal must be taken within three days, and shall act as a stay of proceedings until it is heard and decided.

4. Upon the findings of the inspector in any case of infested plants, the treatment prescribed by him shall be executed at once (unless an appeal is taken), under his supervision; cost of material and labor shall be borne by the owner, provided, however, that in case the plants shall be condemned they shall be destroyed by the inspector, and the expense of such action shall be borne by the owner.

5. In case any person or persons refuse to execute the direction of the inspector or of the said board after an appeal, the county judge shall, upon complaint filed by the inspector or any freeholder, cite the person or persons to appear before him at the first regular session of the county court, and upon satisfactory evidence shall cause the prescribed treatment to be executed, and the expense thereof and costs of court shall be collected by warrant from the owner or owners of the infested plants.

6. It shall be unlawful to offer for sale, sell or transport plants, cions, trees, shrubs, or vines known to be infested with the San Jose scale. Any person or persons violating this section shall, upon conviction thereof, be fined not less than fifty dollars nor more than one hundred dollars.

7. The said Board of Control of the Agricultural Station, its agents or employees, are hereby empowered with authority to enter upon any premises and examine all plants whatsoever in discharge of these duties herein prescribed. Any person or persons who shall obstruct or hinder them or their agents in the discharge of these duties shall be fined not less than twenty nor more than fifty dollars.

8. The said board shall make an annual report to the governor of the state, giving in detail its operations and expenditures under this act.

9. This act shall be in force from its passage.

Approved March 5th, 1896.

MARYLAND INSECT LAW.

Following is the Maryland law regarding insects on nursery stock :

Chapter 290—An Act to add to Article forty-eight of the Code of Public General Laws, title Inspection, a new sub-title to be known as Trees and Nursery Stock and seven new sections thereunder, to be designated Sections 51, 52, 53, 54, 55, 56 and 57, providing for the examination of trees, plants, vines and nursery stock, and to exterminate the San Jose Scale, Rosette, Yellowings and other diseases and insects.

Section 1. Be it enacted by the General Assembly of Maryland, that there shall be added to Article forty-eight of the Code of Public General Laws, title Inspection, a new sub-title to be known as Trees and Nursery Stock and seven new sections thereunder, to be designated Sections 51, 52, 53, 54, 55, 56, 57.

51. The Governor of Maryland shall once in every two years designate and appoint one of the Professors at the Maryland Agricultural College, State Entomologist, who shall serve without pay other than that he may receive as professor of said college but whose expense shall be paid as hereinafter provided, whose duty it shall be to inspect any and all nurseries in the State of Maryland when any trees, plants, vines, or other nursery stock is grown between the first day of each March and the first day of September next succeeding, and he shall notify in writing the owner of such nursery, the Governor of this State and the Principal of the Agricultural College of the existence of any San Jose Scale, Yellowings, Rosette, or any other insect or disease which may effect the trees, vines, plants or other stock in such nursery, and also notify the owner thereof in writing that he is required on or before a certain day to be named therein to take such measure as has been shown or proven to be effectual for the destruction of such San Jose Scale, Yellowings, Rosette or other disease, to destroy and exterminate the same.

52. The owner of such nursery trees, vines or nursery stock shall within the time specified in such notice take such steps for the destruction of such San Jose Scale or other insect or disease as will exterminate the same, and he shall not ship or deliver any trees, plants, vines or other nursery stock affected with such disease or insect under a penalty of a fine of one dollar for every tree, plant or vine so affected when shipped from such nursery, which fine may be collected by suit by the State's Attorney of the county in which such nursery is located, one-half to go to the informer, the balance to be paid to the Trustees of said Agricultural College.

53. Whenever it shall happen that the State Entomologist shall give the notice heretofore required to the owner of a nursery for the destruction of the insects or diseases mentioned, and the said owner shall fail or neglect to take the measures necessary for the destruction thereof within the time mentioned in the notice given him, it shall be the duty of the State Entomologist to have the proper remedies applied to such nurseries for the destruction of such insects or diseases, and shall employ all necessary assistance and may enter the premises of the said owner of such nursery for the purpose of treating and exterminating such insects or diseases, and the said owner of such nursery shall be liable for the costs of such proceeding.

54. Whenever a nurseryman or seller of trees, plants, vines or other nursery stock shall ship or deliver any such goods to any purchaser in this State, he shall send on each and every package so shipped or delivered as well as transmitted to the purchaser, by mail, a written or printed certificate signed by him, that the whole and every part of such stock or goods have been examined by the State or Government Entomologist and that the same is entirely free from all San Jose Scale, Yellowings, Rosette and every other insect or disease whatever, and a failure to furnish such certificate shall render him liable to the penalty of a fine of one hundred dollars for each and every such shipment or delivery without such certificate.

55. Whenever any nurseryman, fruit grower, or agriculturist in this State shall know or have reason to believe that his trees, plants or vines are affected with San Jose Scale, Yellowings or any other insect or disease, he shall have the privilege and it shall be his duty to notify the State Entomologist thereof, who shall at once proceed to the premises designated and examine the same and suggest and recommend the proper remedies for the destruction of the same and give all information he can

to aid in exterminating such insects or disease, and instruct the owner thereof how to use the remedies he recommends.

56. The said State Entomologist when he examines any trees, plants, vines or nursery stock in the State under the provisions of this act and he finds such trees, plants, vines or nursery stock is free from all San Jose Scale, Yellowings, Rosette or other disease or insect, he is hereby authorized and directed to make out and deliver in writing to the owner of such trees, plants, vines or nursery stock, a certificate that he has examined such trees, plants, vines or nursery stock and that he finds the same free from all San Jose Scale, Yellowings, Rosette or other disease or insect, and said State Entomologist shall also file a similar certificate with the Governor of the State and with the President of the said Agricultural College which certificates shall at all times be subject to public inspection.

57. The sum of five hundred dollars annually or so much thereof as may be necessary, is hereby appropriated for the purpose of paying the expenses of the State Entomologist in the performance of his duties under the provisions of this act and the Comptroller is hereby directed to issue his warrant upon the Treasurer for the said sum and the State Entomologist shall make report to the Comptroller of the amount expended.

58. Whenever any trees, plants or vines are shipped into this State from another State, every package thereof shall be plainly labeled on the outside with the name of the consignor, the name of the consignee, the contents, and a certificate showing that the contents have been inspected by a State or Government officer, and that the trees, vines or plants therein contained are free from all San Jose Scale, Yellowings, Rosette and other injurious insect or disease. Whenever any trees, plants, or vines are shipped into this State without such certificate plainly fixed on the outside of such package the fact may be reported to any Justice of the Peace of this State and such Justice shall issue a summons for the consignee of such package, and the agent of the consignor, if he be known, to appear before him on a certain day to be therein named, to show cause why such trees, plants or vines should not be seized as being in violation of the provisions of this Act, and on trial thereof, if said Justice is satisfied that the provisions of this Act have been violated, said Justice shall order said agent or consignee to return said packages of trees, plants or vines immediately to the shipper or consignor unless said consignee or agent shall forthwith have said trees, plants and vines examined by the State Entomologist of this State and he certify to such Justice of the Peace that the said trees, plants or vines are free from all insect and disease and if said agent or consignee shall fail to have such nursery stock examined by the State Entomologist, or fail to return such packages to the shipper or consignor thereof, then said Justice of the Peace shall order and direct the Constable or Sheriff to burn and destroy all such trees, plants and vines as have been shipped into this State in violation of law.

Section 2. And be it enacted that this Act shall take effect from the date of its passage.

Approved April 2nd, 1896.

The Tree Planting Association of New York City was organized on June 25th. A constitution and by-laws founded upon those of the Brooklyn Tree Planting Association were adopted. Some of the most prominent citizens are members. There has lately been considerable agitation for the planting of trees in New York's barren streets.

Commissioner of Agriculture Weiting has appointed Lewis Lincoln of Gorham, Ontario Co., N. Y., agent to examine trees affected with black-knot and yellows, at request of the town board, from whom the appointee receives his compensation. This is in accordance with chap. 134, laws of 1895, which gives the commissioner power to appoint, only when these diseases are known to exist in any town or city of the state. The term of office is thirty days.

Recent Publications.

The report of the proceedings of the twenty-first meeting of the American Association of Nurserymen has been issued in pamphlet form by the secretary, George C. Seager, Rochester. It contains a stenographic report of the remarks by Professor L. H. Bailey, which attracted so much attention at the Chicago convention.

"The Journal of the Kew Guild" is of interest to many besides the association of Kew gardeners, for which it is published. The rules of the guild provide that the journal shall be published annually in May. This year's number contains a memoir of Dr. Daniel Morris, the assistant director of the Royal Gardens at Kew, England; a report of the proceedings of the 1896 meeting; a report of the proceedings of the Mutual Improvement Society; the list of lectures; an article on the Kew gardens by F. W. Burbidge; another on Kew men and botanical work in the colonies; the Kew staff; a list of Old Kewites and notes and correspondence. There are excellent pictures of Dr. Morris, W. Granger and others. London: TAYLOR & FRANCIS.

The thirty-eighth annual report of the Missouri State Horticultural Society, containing the proceedings of the meetings in June and December, 1895, is a welcome addition to the horticultural library. The reports of this society are bound substantially in cloth, and this fact adds much to their value. It would be a marked improvement if other horticultural societies would follow the example of the Missouri society in this respect. The additional cost is more than offset by the convenience of reference and the durability of the reports. The Missouri report is compiled as heretofore by the secretary, L. A. Goodman, Westport, Mo., who with J. C. Evans, president; N. F. Murray and Samuel Miller, vice-presidents, and A. Nelson, treasurer, form the official staff of the society. This volume of 430 pages contains a great amount of valuable matter, systematically and attractively arranged. Jefferson City, Mo.: TRIBUNE PRINTING CO.

The seventh annual report of the board of trustees of the Missouri Botanical Garden has been issued under the supervision of the well-known director, Professor William Trelease. It is in the usual handsome octavo form. The letter press, paper and illustrations are of the highest quality. The space for official matter has been reduced to the minimum and most of the volume is devoted to elaborate articles upon botanical themes. The subjects discussed are: "Juglandaceae of the United States," by Professor William Trelease; "A Study of the Agaves of the United States," by A. Isabel Mulford; "The Ligulate Wolffias of the United States," by Charles Henry Thompson. Henry Wade Rogers discusses the value of a study of botany. There is also a catalogue of the Prelinnean library presented to the garden by Dr. E. Lewis Sturtevant, 463 books, valued at \$2,315. The gardens now contain 301 named species of trees, 561 of shrubs and 1,129 of hardy perennial herbaceous flowering plants. The herbarium contains 250,000 specimens. St. Louis: BOARD OF TRUSTEES.

Another addition to the Library of Horticulture and Gardening, published by Octave Doin, Paris, is a volume of 300 pages treating of the preparation of the soil and composts in horticulture, by George Truffaut, horticulturist and laureate of the National Horticultural Society, with a preface by P. P. Dcherain, member of the Institute. In this little volume is comprised an amount of information which is surprising. The work is the result of the most painstaking study and research coupled with a scientific knowledge of the subject, which cannot fail to be appreciated by even a cursory glance at the contents. The first part of this work is devoted to a study of soils, to their formation, Mr. Truffaut considering the soil successively as a support for plants and as a source of nourishment. In the second part he reviews the different lands used in horticulture, silicious, clayey, calcareous, humous. He enumerates the plants to which these soils are adapted and indicates the fertilizers to be employed. The horticulturist often making for himself the soil which he uses, Mr. Truffaut describes the mixtures, land for the garden, the heath, the compost of leaves, the mosses and the sand. Chapter X is devoted to an example of analytical culture. The book will be found to be intensely interesting because of the author's style, as well as very instructive. Paris: OCTAVE DOIN.

Endorsements.

NORTH STAR CURRANT.—At the recent meeting of the Michigan State Horticultural Society Professor Taft, in answer to the question, "What is the best new variety of currants," replied that he considered the North Star the best, and most promising. It is not troubled much by the borer, and has as strong a growth as the Fay and others.

LOGANBERRY.—L. F. Kinney, of the Rhode Island Experiment Station, says of the Loganberry: "It is a thing worthy of note nowadays, to find a new type of small fruit, that actually bears berries which have a value; but the Loganberry appears to have this distinction. The plants are robust, and exhibit a curious intermingling of the peculiarities of the raspberry and the dewberry. The fruit is neither, but is intermediate. It has the color, and in a mild form, the flavor of the raspberry, but the size and structure of the dewberry, and when cooked with sugar, makes an excellent sauce. I have observed the Loganberry only under good cultivation, the canes covered with earth in winter and supported on a wire trellis during the fruiting season. Under such conditions, it has proved prolific, the large berries ripening in advance of Cuthbert raspberries."

CRIMSON RAMBLER.—*The Rural New Yorker* has been making a thorough test of the Crimson Rambler rose. It says: "Our plants were received in the early spring of last year. They were planted in different soils and situations, so that we might test its hardiness, and its power of adapting itself to different conditions. One was planted within a foot of the lake and less than a foot above the water; another in a rather dry place near sunken paths on either side, and so on. All passed the winter without the slightest harm, and every one has made a fine growth this season. The roses average two inches in diameter. The buds are small and round. We would say that the average number of roses of a single panicle is 30, and this the first season of bloom. The brightness of the color is not exaggerated in the colored pictures of the nurserymen and florists. It is a bright crimson. The number of petals is about 30. These young plants bear as many as 20 panicles of roses."

BERBERIS REPENS.—One of our most strikingly peculiar Rocky mountain vines is *Berberis repens* or creeping barberry, says the *Denver Field and Farm*. It is an evergreen recumbent with leaves much like the holly. It often grows on very rough, rocky places, covering unsightly spots with its attractiveness and we have found it growing up as far as timberline. Its chief beauty is when in bloom in the springtime. The foliage is deep green and it bears flowers in great, rich golden racemes, having a fragrance which fills all the air. It is very hardy, and endures drouth well. It blooms in early May. The fruit is about the color of the Concord grape, with a deep bloom, and about half its size. It is sometimes called the Oregon grape. It bears in July, and the fruit is often used by the mountain people for jams and jellies. There is a growing demand for this plant in the East and agents have lately been gathering quite a quantity for some leading horticulturists. We cannot see why it should not be quite an acquisition as a border plant. The flower is certainly very attractive, both in color and fragrance. The leaf is beautiful, and the fruit, though not of the best, might be greatly improved by cultivation.

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Write for prices, stating quantity wanted.

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DESIGNED BY
JAMES H. HARRIS

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. IV.

ROCHESTER, N. Y., SEPTEMBER, 1896.

No. 7. 8

RETAIL TRADE.

Special Reports on Fall Sales from Dealers in Various Parts of the Country.

In response to a request by THE NATIONAL NURSERYMAN regarding the season's trade in the retail line, as to comparison of sales with those of last fall at this time and the prospect for spring sales, the following replies were received:

AT ROCHESTER.

ELLWANGER & BARRY:—"Our sales as compared with last year's, at this time, are about the same."

BROWN BROTHERS COMPANY:—"We considered last year only an average one; that is to say, our sales were a little heavier than of the preceding year, but we are gratified to say that so far this year they have increased twenty-five per cent. and the prospects look very bright and point to an exceptionally heavy year in the retail line; at least it is so with us and we have no reason to think that this improvement will not be steady and continuous. Of course being a presidential year, it may be that in the fall sales may drop a little, but we look for a much heavier year than we have had in a good many years past."

W. & T. SMITH CO.:—"Fall sales this season, nearly double those of last year. All sales made strictly at price list prices. Too early in season to estimate spring sales."

H. P. FREEMAN & Co.:—"April, May and June showed a good healthy increase over sales of last year for fall delivery. July turned out a fair average. August so far (the 10th) indicates an improvement. Up to date total sales show a gain of from ten to fifteen per cent., the gain being made up of increased sales of small fruits and ornamentals. I think the prospects for spring trade will be much better than they have been for fall."

E. O. GRAHAM:—"My sales for fall 1896 delivery will probably be twenty-five per cent. greater than for fall of 1895; and sales of the year to date, including fall of 1896 and spring of 1897 are about fifteen per cent. greater than the corresponding seasons of last year."

"I am inclined to think that the gain we have made up to this time over last year may be lost by a falling off during the balance of the season, owing to the presidential campaign, which usually effects our business adversely. I think I can safely say that my aggregate sales for fall '96 and spring of '97 will be as much as the past two seasons, and possibly there will be a slight increase."

HOOKE, GROVER & Co.:—"We think the general experience of retailers is that there is not as strong a demand for stock this year as last; nevertheless, we have been able to keep our sales up to the average by constant work and pushing. We attribute the dullness in our business partly to the general hard times and to the political situation."

"Sales for fall delivery are equal to those of last year and prospects for spring delivery are, we think, about equal to those of last year. We at least expect to have as large fall and spring deliveries as last season."

THE HAWKS NURSERY CO.:—"Thus far this season our sales have been much larger than for the corresponding period last year, and we anticipate good sales for spring."

AT GENEVA.

THE R. G. CHASE CO.:—"Our sales for the coming fall are several thousand dollars behind a year ago at this time. Most of our sales for

fall delivery are made in the southern states, and from the fact that in considerable of the territory the people are "hard up" we have avoided as far as possible such territory. As to sales for spring '97, we have sold at this time about the same amount as a year ago at this time, and we think the prospects are quite favorable towards a good-sized delivery next spring. Of course, in the unsettled condition of the country, it is difficult to make any safe predictions."

HAMMOND & WILLARD:—"Our sales for fall and the coming spring are slightly in excess of 1895."

SEARS, HENRY & Co.:—"It would seem from all we have in now that our retail trade will fall short of last fall only perhaps ten per cent., but the outlook for spring is good, and with the deep burial of the silver question out of sight forever as all confidently hope in November, we expect to do a strong business for spring."

D. H. PATTY:—"My fall sales are about the same as they were last fall, but I find it has required a great deal more labor and more advertising to work up the same sales. Farmers complain bitterly of hard times and low prices. The prospect for spring sales does not look very encouraging, but at the present writing my spring sales are fully equal to what they were a year ago."

IN THE EAST.

RICHMOND, VA., August 11.—W. T. Hood & Co.: "As to our retail business we have done about twenty-five per cent. more business this year than last. This is the result of more money spent on getting agents and closer and harder work in pushing sales, and is not an evidence of improved trade conditions in our territory."

"The trade is demoralized. Too much stock is grown for the demand. The spring 'agency' business in our territory is always light, and agents are still selling only for fall."

SPRINGFIELD, N. J., August 12.—Flemer & Felmy: "Our retail sales through agents are fully up to and a shade better than they were for the same term a year ago with a decided difference in favor of fall planting. We note on our aggregate a general increase on the sale of peach and apple. Pear have taken a drop of nearly twenty-five per cent., while cherry, plum, quince are about normal. There is a usual demand for the small fruits, grapes showing a slight gain and ornamental stock of all kinds has taken a step or two downwards."

BALTIMORE, August 10.—Franklin Davis Nursery Co.: "Our retail sales are about as '95. We have no reason to complain up to this time."

"We see no reason why spring '97 business should not be satisfactory. Long before that time we feel that the 'all absorbing' money question will be settled and the business world will know what to expect for four years at least."

"We look for lower prices on some lines of nursery stock, pears and cherries particularly. The main cause of this is over-production. It is very apparent the supply is far in excess of the demand. We believe apple and peach will hold their own; a few good sellers in both are already short."

BATAVIA, N. Y., August 12.—Nelson Bogue: "Sales at Batavia are just about where they were last year at this time. We expect next spring's trade to be an improvement over that of '96, which was quite satisfactory."

ELMIRA, N. Y., August 12.—E. M. & H. N. Hoffman: "Retail sales so far this season have been greater than last year, but we account for it by the fact that we have made a greater effort to effect sales than we have made other years. There seems to be no greater demand for stock; about the same demand in fact. It is too early for us to give any idea of what our spring sales will be."

SENECA, N. Y., August 12.—W. P. Rupert & Sons: "The ratio of sales at this time compared with last year this time simmers down to about 5 to 6—a healthy lot of orders, not large and a more than usual per cent. of small ornamental orders."

NEW ENGLAND.

WATERVILLE, MAINE, August 10.—J. L. Merrick & Co.: "Our sales for this season will be about the same as last fall, and the prospect for the coming spring sales is good."

BOSTON, MASS., August 15.—H. M. Whiting, Whiting Nursery Company: "Our sales are equal to those of last year at this date; the result of a larger number of men in the field. We anticipate only moderate results for the balance of the season and for spring delivery as our salesmen do not seem to command sufficient enthusiasm to overcome the present poor condition of trade."

SALEM, MASS., August 15.—Southworth Brothers: "Our sales for this season as compared with last fall at same time have been considerably larger, and judging from present outlook we expect increase of business the coming spring."

CENTRAL STATES.

BLOOMINGTON, ILL., August 10.—Phoenix Nursery Company: "Our orders through salesmen this season we think will compare very favorably with those of other seasons for the past three years. We find it takes lots of work to sell trees these close times."

SANDWICH, ILL., August 12.—H. C. Graves & Sons: "Retail sales about one-half as large as last season, fall '95."

CHICAGO, ILL., August 11.—Luke Brothers Company: "In figuring up our books we find that we have had a very nice increase thus far of from between 34 and 35 per cent. of the gross amount of business done. Our advertising seemed to take better and our men as a rule have done better this season which makes us hopeful for a good spring's business. We expect our business this year will be very much larger than anything we have done heretofore."

SPAULDING, ILL., August 12.—Irving Spaulding, secretary and treasurer Spaulding Nursery Co.: "By increasing our force of salesmen we are holding ourselves up to where they were last season, and expect to do better business and larger retail business this fall than for several seasons past."

NASHVILLE, TENN., August 14.—A. W. Newson, Cumberland Nurseries: "Our sales to date, \$92,000; will reach about \$100,000. This is about \$12,000 more than last year. Most of our work is done for fall and winter delivery. We commence selling for fall about January 15th and continue sending out salesmen until April 1st; and commence delivering October 25th and continue until Christmas, frequently running us over into the new year."

"We do little for spring, from \$5,000 to \$15,000, and pay little attention to spring delivery as it interferes with our fall work. Everything is so hot and dry here just now, that nothing could be done for spring, and we do not expect to put out any new before October 1st."

IN THE WEST.

LAKE CITY, MINN., August 11.—J. Cole Doughty, secretary Jewell Nursery Co.: "Our retail sales are somewhat larger in volume than at this season last year. This does not imply any particular improvement in business conditions, but simply indicates that we have striven just that much harder to secure orders. We are about through harvest and grain is turning out about sixty per cent. of what it was estimated one month ago."

"The free silver craze is catching a great many of our farmers, particularly those who have the '95 crop still in their granaries. They are being told that free silver will bring the prices of grain, etc., back to where they were in '92 and '93 and, 'The wish being father to the thought,' they want to believe it."

"No political contest for years past has equaled the present one. It not only disturbs business everywhere, but in localities it paralyzes it. One agent writes, 'The first question I am asked when I introduce my business is, 'Are you for silver or gold?' and an equivocal answer does not always go.' Let the result of the contest be as it may, there can be no doubt that the damage to business in a presidential election year is incalculable. There are probably 5,000,000 active business men affected by this election excitement. Why in the world they permit it to occur every four years is a profound mystery."

"Coming back again to the previous question, stock is growing fairly well. We never had finer plum trees, small fruits, grape vines, etc., but apple trees are considerably blighted, particularly hybrid or crab apples."

"Strawberries were a failure and plants not overly strong now, owing to the dry weather; raspberries and blackberries a fair crop; grapes promising well. The extreme hot weather combined with the drought will tend to mature stock early. We look for an early fall and pray for two feet of snow the coming winter."

GREELEY, COLO., August 11.—George J. Spear: "My sales for this fall are about two-thirds of what they were last fall; and last fall's sales were about double those of any preceding year, which makes this fall's sales about a third more than any preceding year, except the fall of '95."

"I attribute the falling off of this season's sales over last wholly to the low price of all kinds of produce. Yet there appears to be great interest taken in horticultural affairs, and judging from the first few weeks' business would think the sales would increase instead of diminish from now on."

WARRENSBURG, MO., August 14.—L. Mohler & Bro.: "Think our sales are equal to the same time last year, but not so many commercial orders; and indications for spring trade are good, especially if the agitation over the money question becomes somewhat settled."

YANKTON, S. D., August 12.—George H. Whiting: "We look for a very large increase, perhaps double that of last year, due to the fact that the rainfall has been much greater this season than for several years past. The past two or three falls have been unusually dry and therefore discouraging to planters generally in this vicinity."

"Our fall sales here are very insignificant in the retail trade as compared with those of spring as there is very little planting done here in the fall except such small stuff as can be given winter protection, and planters usually prefer to let the nurserymen do the wintering of the stock. The prospects are also very flattering for next spring's trade."

SALT LAKE CITY, UTAH, August 12.—M. E. Callahan, treasurer and manager Pioneer Nurseries Co.: "Trade is about the same as last year. We don't look for any improvement until after W. J. Bryan's election."

IOWA.

ATLANTIC, IA., August 12.—Silas Wilson: "Our sales up to this date are really better than last year. We have had an abundance of rain throughout the Mississippi Valley this year and crops are good. I think spring sales will be good also; think the agitation of free silver here is not doing business any good."

SHENANDOAH, IA., August 10.—D. S. Lake: "We do more of a wholesale than retail trade, but I would judge that our retail trade this fall will be about the same as last year. It is most too early to give a definite idea of what the spring sales will be, but would estimate that they would be about as usual."

DES MOINES, IA., August 10.—C. L. Watrous: "It must be said, in truth, that this has been the most unfavorable season for retail nursery trade that I have known in many years. By this I mean, especially, the taking of orders for future delivery. Prices of all farm products have been very low, and our seasons of abnormal drought have been followed by this one of equally abnormal rain. The uncertainty of our financial future, due to the free silver agitation, is also affecting all business unfavorably. When men look into the future with fear, they are slow to incur any avoidable obligation. Other men in the West may have had an entirely different experience this year, but there are not any that I know. I think the prospect for spring sales is much better than for fall."

DAVENPORT, IA., August 11.—Nichols & Lorton: "Retail sales with us are about the same this fall as fall 1895 and the prospects for spring 1897 are better than spring 1896. We also wholesale in car lots and find twenty per cent. more than fall 1895."

CHARLES CITY, IA., August 10.—Sherman Nursery Co.: "On the whole we do not think that our fall deliveries will vary materially from those of 1895. Our business has suffered from the general depression and we think the outlook for spring trade is anything but good."

PERRY, IA., August 13.—Edmondson Brothers: "Our sales for this fall's delivery show a decrease of ten per cent. from sales of 1895. We attribute this largely to the extremely wet harvest we have had and to the agitation of the presidential campaign. We are expecting better sales for spring delivery; as crops, outside of small grain, are good, and with better weather and harvest out of the way sales will improve."

Nursery stock, with the exception of some blight on apple, is looking well, and has made an excellent growth."

OSAGE, IA., August 15.—Gardner & Son: "Our sales for fall '96 will run from thirty to forty per cent. larger than last season, but we are pushing them two hundred per cent. harder than we did at that time. Times are very slow and many retail firms near here have no men in the field at all. Nothing but extra strong men can do business. Our men are all on salary and each gang is under an efficient foreman who weeds out all poor orders and keeps the men hustling. The outlook for spring '97 under ordinary circumstances would not be flattering, but we expect to increase over last spring if such a thing is possible. If we can keep sound money in the coming campaign, we anticipate no trouble in doubling our sales, but if free silver prevails we will have to work hard to come up with last season."

WAUKEE, IA., August 20.—John Wragg & Sons Co.: "Orders are coming in for fall in a very satisfactory way; perhaps not quite equal to last year's sales at this time. Local nurseries are not early buyers, so it is hard to judge how much stock they will use. We are of the opinion that the present season's sale to jobbers and local nurseries will hardly equal that of last year. The fine planting season last spring and the good apple crop are stimulating features, and we are preparing to do about our usual quota of business. Sales of our new Stoddard plum threaten to exhaust the supply and our new hybrid raspberry, the Redfield, is fast taking a leading place for a red berry in the West on account of its hardiness and productiveness.

"We appreciate the reports in your valued journal and should have written sooner, except for absence from home."

KANSAS.

OTTAWA, KAN., August 15.—Brewer & Stannard:—"Up to date we have about the same amount of sales that we had a year ago at this time, not quite so large a sale for fall delivery, but more for spring. There seems to be a growing tendency for spring planting in our territory. There is not more than one-half the apple in the western country to go on the market this year that there was last year, and plum are way short of last season, and not as many pear, cherry and grape, and with the good crops in Missouri, Kansas, Nebraska and Oklahoma, as well as Iowa, we believe all the stock in this territory will be taken up, and a call for heavy shipments from the East.

"A word about presidential years. Our books show an increased sale during the three of the last four presidential years, over each year before and after, and we believe our sale this year will be better than a year ago."

FORT SCOTT, KAN., August 13.—A. B. Combs, assistant secretary Hart Pioneer Nurseries: "We have managed pretty well through correspondence and personal observation while on the road to familiarize ourselves with the general prospects for sales this fall and next spring and so far as our firm is concerned individually, think we will manage to obtain our usual amount, both in wholesale and retail. We are receiving some very good inquiries now for wholesale bills and while our agents' reports do not aggregate as much in dollars and cents, still we have more men on the road to offset this, so we have no fears that we will not do the same amount of business as we did last year. We have had frequent showers in this locality and all of our stock without a single exception is looking very fine and is making a very satisfactory growth. Our peach and apple especially are way above the average."

SEDGWICK, KAN., August 11.—The Sedgwick Nursery Co.: "Our sales up to date are better than last year and we anticipate an increase in both wholesale and retail orders for spring of '97 over previous years."

OTTAWA, KAN., August 10.—A. Willis: "Trade with me has been about the same as last year. The last week it has run a little light and is likely to continue to do so, I think. It has run better so far this season than it seemed reasonable to anticipate at the beginning, as politics is absorbing the attention of our people in a considerable degree. Sales are hard to get and yet this is a true planting country and a large amount of trade for fall and spring is bound to be done and we feel confident we shall be able to get a reasonable share of what is done with this business, as in other lines times are close and the people cautious about buying; but hard work has in the past and I think will in time to come bring profitable results."

LAWRENCE, KAN., August 10.—A. C. Griesa & Bro.: "Up to July 15th our sales were better than last year at that time, though at harvest and threshing season there is always a shrinkage. The outlook for the remainder of the year is good. We are confident that by April 1st, 1897, all stock of commercial sorts will have found a market. We see no reason for any decline in the wholesale price of last spring.

"We feel sure that for various causes, the amount of No. 1 stock on the market and to be offered, will be much less than last spring, while the planting will be the same if not better. Crops of all kinds are good; and the fruit crop the best paying of all. Consequently there is no other conclusion. With a knowledge of existing conditions, we are in a hopeful and confident mood."

TOPEKA, KANSAS, August 19.—L. R. Taylor & Sons: "We find sales come rather hard this fall, however they compare quite favorably with last fall. We look for quite an active market the coming spring. We think this season's sales will average about the same as last year, light in the fall and heavy in the spring."

NEBRASKA.

FREMONT, NEB., August 11.—Fields & Bryant: "Our retail sales have not been as good as last year. Bills run smaller this year than ever before and it cuts down the aggregate of our sales nearly one-third. Light crops the last two years is the principal cause, but if the present prospects for corn materialize we look for a good trade this winter.

CRETE, NEB., August 10.—E. F. Stephens: "Concerning sales present and past, we think the nurserymen of Nebraska are selling more trees this year than last, on the whole. We are, at any rate. Perhaps twice as many. Not because sales are easier to make, but because we are making double the effort. The crops in the eastern half of the state are abundant and sales would be free if it were not for the presidential year. The silver people are sure the state is going to ruin if McKinley is elected, and the rest of us are quite sure of unparalleled hard times if Bryan is elected. So between the two, there is great hesitation in buying. I think the impression is current among most business men that if the Republican ticket is elected, confidence restored, and capital moves again, then nursery sales for the spring of '97 will be 50 per cent. larger than for the spring of '96.

"Fall delivery of '96 will be very light with all. I think most of the salesmen are putting in the bulk of their work for the spring of '97. Nursery stock has made a remarkably large growth this summer, and the state is overstocked with apple trees and some other lines of stock of excellent quality."

ARLINGTON, NEB., August 10.—Marshall Brothers: "Our sales so far this season are about 5 per cent. above that of this date in '95. Ratio of fall to spring is about the same."

WEeping WATER, NEB., August 21.—C. S. Harrison: "Sales are about as usual this fall. Our line is Rocky Mountain seeds, trees, shrubs and plants. Not so much doing in the fall as spring; yet orders are better than a year ago."

IN THE SOUTH.

HUNTSVILLE, ALA., August 11.—Alabama Nursery Company: "At this time our retail sales are one-eighth larger than last year at the same time, but owing to the severe drought in Arkansas, Louisiana and Texas sales in these states have dropped to almost nothing, and if at the end of the season our total sales for '96 are equal to those of '95 we shall be satisfied. Our spring business here is very light, the bulk of our business being for fall delivery."

AUSTIN, ARK., August 14.—George P. Murrell: "The season opened up very favorably, in this state, Louisiana, Texas and the Indian Territory, which is the field that I have been operating in this season, and for several years past. Last year crops were very fine over the above-mentioned territory, which placed people in a better financial condition than they had been in for years. My outlook now for collecting this fall is extremely gloomy, as the above-mentioned territory has suffered for weeks with the most severe drought ever known. My sales are larger this year than heretofore, but the outlook now for collecting is very gloomy."

DENTON, TEX., August 14.—Lone Star Nursery Company: "Our efforts have been greater than usual this season to sell goods and yet we are \$5,000 short of last year. Crops very poor here and prospects for spring sales are very bad."

Endorsements.

LONDON RASPBERRY.—J. S. Harris, La Creseent, Minn., says: "I think this berry will prove to be the best red raspberry up to this time originated. I like the growth of the bushes. It is perfectly free from disease. It is more productive than any other."

COLUMBIAN RASPBERRY.—Regarding this fruit in the West, Professor Green, of Minnesota, says:—"I fruited the Columbian last year and this year again. It is very much after the style of the Shaffer's Colossal, very much resembles it in cane, berry and leaf. It roots easier than the Shaffer's Colossal and is much easier to propagate. I think the fruit is considerably better. It grew so fast it puzzled me how to cover it."

CAMPBELL'S EARLY GRAPE.—The *Rural New Yorker* says: "It was in the spring of 1894, as we remember, that President George W. Campbell, of Delaware, O., sent us a poorly-rooted cutting of Campbell's Early grape. Neither Mr. Campbell nor the writer of these notes, expected that it would live. It was the only available plant Mr. Campbell had at the time. With careful nursing, it did live, and is now quite a thrifty vine, having stood the past winter (18 degrees below zero, at least) without harm to a bud. There are two main branches, each about three feet high. One of them bears (May 31) a bunch of buds. Another plant was sent to us last fall by George S. Josselyn, of Fredonia, N. Y., who hopes to have a large enough stock to be able to introduce it next fall. What weak characteristics Campbell's Early may develop, no one can tell. From what we have seen, and from Mr. Campbell's experience with it, we have high hopes that it will prove the best black grape in cultivation. The bunches are perfect as to shape, the berry is without a trace of foxiness, and the vine has, thus far, proved hardy in Delaware, O., the Rural Grounds, and in Fredonia, N. Y. We are, as in all such cases, glad to be the first to call public attention to this grape, and we request those of our readers interested in grape growing, to bear this variety in mind and, also, to bear in mind our high hopes (we might say prediction) as above expressed."

GIRDLING A NURSERY.

OWATONNA, MINN., August 1.—With us in Minnesota it is very essential that we get our new seedling apple trees to bearing as soon as possible; the more so because a very large percentage of them are not hardy; another large percentage are subject to blight, and of those which withstand the effects of heat, cold and blight, many are shy bearers or bear fruit of inferior size or quality.

The idea of girdling to produce early bearing was suggested to me by accidental girdling by label wires and by the fact that trees that have received serious injury often blossom profusely and then die. I commenced girdling in a small way in 1894. Of 100 or more trees 4 to 6 years old and standing 4 to 6 feet apart in the nursery row, which were girdled last year, three or four trees died apparently from the effects of blight. Nearly every one of the others is fruiting this season while scarcely a tree not girdled even blossomed.

I am so greatly encouraged by the success of the experiment thus far that I am girdling trees similarly situated quite extensively this season and expect to transform an acre or more of overgrown nursery trees into a bearing orchard in a year's time; and besides we will test our new seedlings as to size, color and quality of fruit far more expeditiously than by the more tedious process of top-grafting. At first I removed a ring of bark one-eighth to one-fourth of an inch wide entirely around the tree. At the present time I am doing the work mostly with a saw. Starting in on the body of the tree I cut to the wood and go down around the tree so that the ends of the cut are in a perpendicular line and several inches apart. On very small trees I am using a knife giving two cuts on opposite sides of the tree, one a little above the other. This is quickly done, and I am practicing on some trees not over a half inch in diameter.

Why not girdle a whole nursery and sell fruit instead of trees? In a large orchard (for this part of the country) which is closely planted I am girdling alternate rows, and since with us there is the greatest flow of sap and consequent growth on the northeast side of the tree. We only cut about half way around on that side of the tree leaving a full

flow of sap on the southwest side which seems necessary to prevent sunscald, which destroys a great many trees here. I have nailed boards on the south side of about 2,000 trees with beneficial results. My theory is that if a tree is hardy a few nails will not harm it, and if tender the sooner it dies the better. With the greatest possible precaution most of our orchard trees are short-lived in Minnesota. On this account we should plant none but our most hardy non-blighting kinds.

Plant closely for the protection one tree affords to another. Manure and cultivate thoroughly to preserve moisture in the ground. Muleh late in the fall to prevent root-killing and girdle judiciously to regulate bearing. On spring-girdled trees water-sprouts start freely below the girdle which should be rubbed off to save using the knife, and above the girdle there is frequently considerable enlargement. Girdling does not cause blight but it does cause the early development of all the characteristics of the tree, and in blighting kinds bark blight is liable to start in at the wound and kill the tree.

It may be of interest to know that at the Owatonna Tree Station of which I have the honor of being superintendent, there are over 800 grafted varieties beside a large number of seedlings from the most hardy of our Minnesota grown trees. And it is expected that a few of these will prove so well suited to our climate and of such great value that with our improved methods of culture apple growing in Minnesota will become a very profitable industry.

E. H. S. DARTT.

FACTS ABOUT APPLE TREES.

Irvin Ingels, Lafayette, Ill., in a paper recently read, said:

If we find that trees planted on rich soil make a much faster growth than on poor land, the ultimate result will be that the orchards planted on the rich prairie soil of Illinois will reach their majority, and die of old age, sooner than those planted at the same time in another part of the country, where the soil and climate is not so conducive to their rapid growth. Frank Wellhouse of Fairmount, Kansas, in Leavenworth county, the most fertile section of Kansas, and perhaps not surpassed anywhere in the United States for fertility, has 1,200 acres in orchard. His planting consisted of 117 acres in 1876. Up to 1880 he 437 acres, and in 1890, 1,200 acres in all, planted. He comes out now with the statement that apple trees there cease to be profitable after a period of 12 to 15 years; that at about that age they begin to decline.

Now the facts are that the trees have reached a premature old age, brought on by rich soil, genial climate and high cultivation. He informs the public that they came into bearing the fourth year after planting, or at seven years from the graft, being three-year-olds when planted. Apples planted in New York do not come into bearing under 10 years after planting, or in our own state in less than eight, or double the time required by those in Kansas.

Is it not a fact then that our orchards are dying of old age? I say they are. The majority of the orchards in this section of Illinois were planted within a period of, perhaps, 12 to 15 years and it would of course follow that they would die of old age at about the same time, or within a period of 12 to 15 years after they first began to die. But, says one, "The young trees die, too." This we do not dispute; any living thing is apt to die. But does this alter the facts as shown?

As to hardiness, we often hear people speak of apple trees being winter-killed, and asking whether this or that variety will stand the winter. I don't believe there was ever a healthy apple tree injured by the cold in this country. I had a few apple trees killed in the nursery row last winter, apparently by the severe weather we had, but on taking the trees up I found that the roots were diseased, and while the cold weather might have hastened their death, it was not the prime cause.

SOCIETY AMERICAN FLORISTS.

The Society of American Florists will hold its meeting for 1897 in Providence, R. I. Officers for 1897 are: Adam Graham, Cleveland, O., president; Farquhar Maerac, Providence, R. I., vice-president; W. J. Stewart, Boston, secretary; H. B. Beatty, Oil City, Pa., treasurer. The proposition to change the name of the society was plainly unpopular with the majority, and the entire proposed new constitution was laid over till next year.

Among Growers and Dealers.

John Charlton offers this fall a fine lot of general nursery stock.

Lewis Roesch, Fredonia, N. Y., visited Rochester nurserymen early last month.

Eugene Willett & Son, North Collins, N. Y., have a large surplus of grapevines.

T. C. Thurlow, West Newbury, Mass., has over 30,000 plants in 200 varieties of herbaceous peonies.

The Spaulding Nursery Co., Spaulding, Ill., offer special inducements to all who will write them.

The proprietor of the Wholesale New Fruit Nurseries, New Fruit, Ky., has revised his trade directory.

It is estimated that the increase in commercial greenhouse building this year amounts to 750,000 square feet.

Two million peach trees, one year from bud, are offered by Harrison's, Berlin, Md. They have other large lots.

Peters & Skinner are headquarters for apple, pear and orange seedlings and Bechtel's double-flowering crab.

W. S. Perrine, of T. H. Perrine & Sons, Centralia, Ill., recently married Miss Genevieve Frazier of the same place.

Gooseberries and currants are the specialties which Ellwanger & Barry, Rochester, New York, are pushing just now.

Seedlings, apple, Japan pear and French pear are guaranteed free from disease by A. L. Brooke, North Topeka, Kansas.

The Hale Georgia Orchard Co., Fort Valley, Ga., say they have more Mariana plum stocks than all others in America.

Thomas Meehan & Sons, Germantown, Pennsylvania, are extensive dealers in fruit seeds and seedlings, native and imported.

The Syracuse, N. Y., nurseries, Smiths & Powell, issue no trade price list, but prices are gladly given at all times upon request.

J. E. Ilgenfritz' Sons, Monroe, Mich., make a specialty of standard pear and apple trees. They have a full line of ornamental stock.

The stock of Hoopes, Brother & Thomas, West Chester, Pa., is especially rich in ornamental trees and shrubs and high grade roses.

A. E. Windson, Havana, Ill., the well known grower of Honey locust and Osage orange, was in Rochester the early part of August.

The C. L. Van Dusen Co., Geneva, N. Y., has been organized with a capital of \$6,000, for the purpose of growing and selling nursery stock.

S. M. Emery, well known to the nurserymen, as an ex-member of their fraternity, is making a great success of the Montana Experiment Station at Bozeman.

The New Jersey nurserymen who carry full stocks of ornamentals will oblige by mailing catalogues to James MacPherson, landscape gardener, Trenton, N. J.

Conservative estimates place the Niagara County (N. Y.) apple crop this year at 2,000,000 bushels. Orleans and Wayne are placed at 1,000,000 each, and Monroe at 500,000.

L. C. Bobbink, Rutherford, N. J., returned from Holland on August 5, with a fine stock of imported plants, such as roses, clematis, hydrangeas, azaleas, rhododendrons, palms, etc.

H. D. Simpson, of H. M. Simpson & Sons, of the Knox Nurseries, Vincennes, Ind., wholesale growers of apple and cherry, called upon Western New York nurserymen last month.

Brewer & Stannard, Ottawa, Kansas, carry a superior line of apple, pear, cherry, plum, peach, apricot, gooseberries, forest seedlings, asparagus and pieplant and apple seedlings.

J. G. Harrison & Sons, Berlin, Md., are offering 1000 bushels of natural Tennessee peach seed, guaranteed pure and free from any taint of disease. They will quote prices upon application.

The Oregon Wholesale Nursery Co. is pushing the Lambert cherry. Among those who have seen the fruit and who expressed a desire to test the variety are S. B. Heiges and C. L. Watrous.

F. W. Edwards, assignee of the Framingham Nursery Co., 53 State street, Boston, on July 27th announced that the creditors whose debts

have been proved and allowed as not privileged, would be paid 21 $\frac{1}{16}$ cents on a dollar.

T. C. Thurlow is proprietor of the Cherry Hill Nursery, West Newbury, Mass., and that is his only address. Many nurserymen, depending upon trade directories, are sending Mr. Thurlow three circulars or catalogues to as many addresses.

The Oregon Wholesale Nursery Company's business is out of the receiver's hands and the company is doing business again at Salem, Oregon. M. McDonald, the former vice-president, is now president. A. McGill is secretary and treasurer.

William Fell & Co., Hexham, England, in another column call attention to their varied assortment of high class nursery stock. No firm in Great Britain is better or more favorably known among American nurserymen. Mr. Fell is a regular attendant upon the annual meetings of the American association.

Thomas Mehan & Sons, Germantown, Phila., are erecting a greenhouse which will be a model of its kind. It is 100 feet long by 55 feet 6 inches wide. It is built on a side hill, sloping toward the southeast. It is eight feet high at the back and seven feet high in the front, and has no ridge pole. The ventilators are on the front and back and extend along the entire length of the house. The cost will be over \$1,500. The greenhouse is to be used for propagating purposes.

P. J. Berckmans, Fruitland, Ga., says: "There is frequently a demand for orange blossoms at a season of the year when orange trees have long passed the blooming period, and no efforts seem to be made by florists to supply this deficiency. In the *Murraya exotica* a good substitute is found for material for bridal bouquets, and although this plant was introduced in Europe more than a century ago and cultivated in the United States by a few amateurs for at least fifty years, still it seems to be almost unknown in the florist trade, as well as its value ignored."

Youngers & Co., Geneva, Neb., are extensive fruit raisers and scientific horticulturists. They have fruited 107 varieties of apples and announce to the public that out of this number they find ten successful and but seven of these are standard. The Youngers firm has planted 1,100 peach trees this year. They have planted 1,000 cherry trees and from careful personal observation for many years adopted the following list in the order named, which covers a ripening period from June 5 to August 1: Deyhouse, Early Richmond, Early Morello, Large Montmorency, Osthime, English Morello and Wragg.

J. M. Russell, Wymore, Neb., the largest peach grower in the state and the largest in the Western country, has made Nebraska famous in peach culture. His orchard of 150 acres has a crop this year of 15,000 bushels, which he commenced marketing on the 5th of July, at the rate of 1,500 to 2,000 baskets per day. These baskets hold one-fifth of a bushel each and net Mr. Russell 25 cents, making at this rate a net income of \$18,740 for his peach crop this year. The yield of this orchard for the last three years has been as follows: In 1893, 6,000 bushels; in 1894, 2,000 bushels; in 1895, 5,000 bushels, and the present year, 15,000 bushels.

G. H. Miller, Rome, Ga., says of the annual meeting of the Georgia State Horticultural Society: "It was one of the best and most interesting meetings that the society has ever held. We had a very good attendance. Professor L. H. Bailey, of Ithaca, N. Y., gave instructive talks which added much to the interest of the meeting. The importance of thorough work in all horticultural operations, such as spraying, cultivating, jarring trees for curculio, etc., was emphasized. The display of fruit was very full in the department of grapes, the Experiment Station of Georgia making a large and interesting display. Owing to the fact that the peaches in Georgia were about all marketed the display of peaches was very limited. The next meeting of the society will be held at Savannah."

E. F. Stephens, Crete, Neb., president of the State Horticultural Society, is an extensive grower of apples, aside from his nursery interests. He has an orchard of eighty acres. In 1891 his apple crop was 13,000 bushels and his cherry crop 700 bushels. Some exceptionally fine yields he has kept a record of by trees. A Wine Sap tree, 13 years old, produced 24 bushels in one crop; a Ben Davis tree, 20 bushels; an Utter's Red, 17 bushels. In cherries he has had Early Richmond trees to yield as much as 3 $\frac{1}{2}$ bushels each. He is growing twenty varieties

of cherries, but recommends for a commercial orchard but two, Early Richmond and English Morello. As to the Russian varieties he expresses the opinion that they have not yet been sufficiently productive to displace the above kinds.

A. I. Root, of Colorado, recently visited the great nursery firm of Storrs & Harrison at Painesville, Ohio, and among the many fine things seen there he describes the following: "I saw a beautiful nursery of what I call cottonwood trees. They told me they were sycamore. The trees were in straight rows, perhaps four feet apart. Each tree was remarkably like its neighbor—same height, same size, and all straight; and the growth was so vigorous that there was not a weed nor even a blade of grass—nothing but sycamore trees. They told me afterwards that these trees had no cultivation whatever, and at that time they needed none. As there seemed to be acres of them, I asked them where they were going to sell them all. They said they were sold already, and only a year ago they did not have enough to supply the demand."

J. P. Dunlap, Dwight, Neb., is one of the very first men to commence fruit growing in the state. He has given the subject careful and patient study, and for many years has enjoyed the reputation of being reliable authority on all matters of fruit and tree culture. In connection with his horticultural interests he has added a very valuable variety of apple to the list recently, which is known as the Dunlap. It is an every year bearer, in size and color resembles the Ben Davis, except a little deeper red, is a better all around apple, and has a great many admirers already among apple growers. Mr. Dunlap is largely interested in nursery matters, and has done much in encouraging the cultivation of evergreen trees and ornamental shrubbery. Mr. Dunlap recommends to the beginner to select for winter varieties the Dunlap, Ben Davis, Wine Sap and Jonathan. For summer and autumn, Duchess, Whitney, Wealthy, Utter's Red and Haas.

THE GRAPE CROP.

Fruit's reports of the grape crop in Central and Western New York and in Ohio are as follows:

The Chautauqua grape crop which was all told 4,000 cars in 1894 and 3,500 in 1895 will in 1896 probably keep up the average of those seasons. Concord is perfectly healthy, the foliage luxuriant and the fruit sound. Frost and wind damage of course were to some extent a loss, but the bearing shoots have an unusually large number of clusters each. The rains have had the effect to retard ripening so that shipments will begin little if any earlier than last season.

It is generally believed that the crop of Concord in the Central New York region; namely, on the shores of Keuka, Seneca and Canandaigua lakes is the largest ever known. The Catawba vines are also hanging very full, and the clusters are very large. Niagaras seem to be short in all localities, and the Delawares will not be a full crop.

The grape crop in the Northern Ohio belt, never looked more promising; the tonnage per acre will be fully up to '93, and may possibly exceed it. The quality will be exceptionally fine, large berry and very large and compact bunches. At Avon, Dover and Rocky River the yield never was so heavy. At Euclid, Noble, Wickliffe and Willoughby reports come daily of a heavy crop and thus far no damages.

Average condition of grapes in New York, 80; Ohio, 97; Michigan, 96; Missouri, 87; New Jersey, 89; Illinois, 100; Georgia, 87.

In the Year Book of the Department of Agriculture for 1896 much of interest to the nurseryman and the horticulturist will be found. In the table of contents are the following topics: Humus in Relation to Soil Fertility; Irrigation for the Garden and Greenhouse; the Health of Plants in Greenhouses; Principles of Pruning and Care of Wounds in Woody Plants; the Pineapple Industry in the United States; Small Fruit Culture for Market; the Cause and Prevention of Pear Blight; Grass Gardens; Forage Conditions of the Prairie Region; Grasses of Salt Marshes; the Relations of Forests to Farms; Tree Planting on the Western Plains; the Shade Tree Insect Problem in the Eastern United States; the Principal Insect Enemies of the Grape. Of the large edition of 500,000 copies, 100,000 copies are allotted to the senators and 360,000 to the members of the house of representatives—or over 1,000 copies for each member of the two houses of congress.

Obituary.

The Western Association of Wholesale Nurserymen has adopted the following upon the death of S. M. Bayles:

"Upon the undersigned devolves the sad duty of announcing the death of S. M. Bayles, one of the original members of the Western Association of Wholesale Nurserymen. Mr. Bayles died at his home in St. Louis, July 1st, 1896, surrounded by his family and friends. He was buried July 3d at Belle Fontaine cemetery in that city. The deceased was born at Adrian, Michigan, in 1839. He began his business career in Missouri. He established the South St. Louis Nurseries in 1859, and by his ability and industry made the business very successful. His high reputation for honorable business dealings are well known to all nurserymen with whom he was acquainted. As a member of our association he was an active participant and a safe counsellor in all our meetings.

"He had been in very poor health for several years, and, despairing of recovery, he sold his nursery to Messrs. Schuette & Czarnowski in 1894, since which time he has done all that was possible to alleviate his sufferings and prolong his life, generally spending his winters in the South and abstaining from all exertion and exposure.

"His death has been expected to occur at any time for many months, still at this late hour it shocks us none the less, for we now realize that one of the brightest and best exponents of our avocation has passed away. "On behalf of the Western Association of Wholesale Nurserymen we tender our sincere sympathies to the family and relatives of the deceased, realizing that by his death they have met with an irreparable loss.

"Resolved, That a copy of this obituary be forwarded to the family of the deceased, and a copy be furnished to the NATIONAL NURSERYMAN for publication, and that a copy of same be spread upon the records of our association.

W. F. HEIKES,	F. H. STANNARD,
PETER YOUNGERS, JR.	J. H. SKINNER,
J. W. SCHUETTE,	W. P. STARK.

DELAWARE PEACHES.

Advices from Milford, Del., state that the Peninsula will market the greatest peach crop since 1875. It is likely to exceed 7,000,000 baskets, and may approach 9,000,000. Such a crop coming 15 years after the doom of peach culture on the Peninsula had been pronounced, proves that little trust can be placed in prophets. The "peach belt" has shifted southward about two miles yearly for the last 25 years, but there are as many trees in bearing in the section as ever. The belt runs from 30 miles below Wilmington to Cape Charles, and has shifted westward into the Chesapeake counties, and two Virginia counties will ship a million baskets. The new home of the peach, between the Atlantic ocean and Chesapeake Bay, is as favorable as any part of the world, except perhaps parts of Persia. Fortunes are likely to be made out of peaches in the future, as in the past. The largest growers of 30 years ago sometimes received \$15,000 or \$20,000 for a single crop. They added farm to farm and orchard to orchard, built large houses, when the currency was inflated and land high, only to be ruined by repeated crop failures, over-production or poor markets. Conditions are now different. Men have bought land more carefully, markets have been widened, and the new belt is more protected from frost by bodies of salt water. There are many single owners of 100,000 trees, and owners of from 2,000 to 10,000 acres of land, nearly all of whom have peach orchards.

Something new in American agriculture is the summer class now being conducted on the farm of George T. Powell, in Columbia County, N. Y., says the *Rural New Yorker*. The students are young men from the cities who have capital, and who desire to invest that capital in farming or fruit growing. They spend three summer months on the farm in orchard and field, doing such work as spraying, pruning, shipping fruit and cultivating—learning all they can of the necessary work on a well-ordered fruit farm. In the fall, they will go to Cornell and take a scientific course—in the meantime, selecting farms of their own and planning to lay them out while studying.

EMERY ALBERTSON.

A large number of our readers will recognize in the subject of our sketch a member, and one of the most regular representatives for the past fifteen years, of the American Association of Nurserymen.

Emery Albertson, of the firm of Albertson & Hobbs, Bridgeport, Marion Co., Ind., was born in 1858, near Canton, Ind., where his father, Oliver Albertson, was engaged in the nursery business from about 1840 to 1875, in this time having built up the largest retail business in the state. But finding his health failing, in 1875 he moved to Bridgeport, Ind., starting a small business, and at the same time directing the business at Canton under the firm name of O. Albertson & Co. After his death in 1879, the subject of our sketch was placed in control of the business, assisted by C. M. Hobbs, who joined him in the business in 1881, since which time the business has been conducted under the firm name of Albertson & Hobbs.

After the death of Oliver Albertson, the business at Canton, Ind., was closed out, and all interests of the estate there disposed of.

In the fifteen years under the present management, the business at Bridgeport has grown to be the largest of its kind in the state and stands among the first in the country for reliability, genuineness and quality of stock, and fair dealing, as well as in assortment of stock carried, their list of varieties including almost everything of value in hardy fruits and ornamentals.

In this time their plant has grown from less than 20 acres, till it now covers 175 acres, closely planted in young fruit and ornamental trees and plants, aside from thousands of orchard trees.

They have also been the introducers of the Robinson plum, which is well known, and are introducing the Ronk apple and late Morello cherry through their agents, and are now offering the Pomona currant, which is the subject of our frontispiece.

MISSOURI FRUIT CROP.

Secretary Goodman, of the Missouri State Horticultural Society, estimates the value of the state fruit crop as follows: Strawberries, \$500,000; raspberries, blackberries, peaches, \$250,000 each; grapes, \$1,000,000; cherries and plums, \$100,000 each; other fruits, \$100,000; beside apples, \$10,000,000—nearly 12½ million dollars, in a year of hard times, fault-finding and uneasiness.

Howell county seems to represent the best that Missouri can do in fruit-growing, having enabled the state to win the gold medal at the New Orleans Exposition. The county contains 610,000 apple trees, 460,000 peach and 45,000 other trees. For the planting of 1895 the county nurseries sold a total of nearly 500,000 trees and 80,000 grape vines. Taking in parts of neighboring counties this fruit region has 1,250,000 trees.

Mr. Goodman is confident that Missouri will be the principal apple-growing state for the next fifty years, and accounts for the decline in the production of the apple-raising sections of Western New York, Northern Ohio and portions of Michigan, to the lost vitality of the orchards, and the failure of growers to stock them with new trees. He further says: "We apple growers of Missouri are now doing what they did in the East fifty years ago; we are planting trees in the virgin soil, and reaping the benefit of the soil's vitality."

BIRD, DEW & HALE, KNOXVILLE, TENN.:—"We had not thought of our subscription having expired; but to a nurseryman, during these hard times, it is a source of great pleasure, to pay for, receive and then read THE NATIONAL NURSERYMAN. We enclose herewith \$1."

POMONA (GODDESS OF THE GARDEN.)

Among the fruits of recent introduction, certainly no one is entitled to more careful consideration, or may be expected to give better returns to the planter, than the Pomona Currant, which is represented in the frontispiece of this issue, and will be sent out in the spring of 1897, by Albertson & Hobbs, of Bridgeport, Ind.

About twenty-three years ago this currant was found growing in a garden near Indianapolis, Ind., by George W. Blue, one of the most prominent fruit growers of the state, who, recognizing its wonderful productiveness and superior quality, at once began its propagation. He now has planted for fruiting 15 acres, most of which are young plants; but of this 15 acres, 6½ acres were planted in 1887-89-90, and produced in '92, '93 and '94 fruit which sold at wholesale for \$9,000, the yield in '94 alone being over \$4,076.00, or over \$627.00 per acre, making over \$461.00 per acre per year for three years, and without a failure for twenty years. These are actual acreage yields of fruit gathered and sold, and are not estimated yields based on the production of a few petted plants.

While not the largest in size, yet it falls but little below Fays and

Cherry, is a beautiful, clear, bright, almost transparent red, has but few and very small seed, and is the sweetest of the red currants; easily picked, hangs long after ripe, and holds its foliage to the last, protecting the fruit from scalding by the sun. Plant a vigorous grower, perfectly hardy, and lasting longer than any other sort; 2 and 3 year plants bearing profusely.

T. T. Lyon, South Haven, Mich., says: "A decided improvement in flavor over Victoria."

Silas Wilson, Atlantic, Ia.: "Having seen it growing side by side with Versailles, Victoria and Fays, I certainly think it has no equal for productiveness and high quality of fruit, and will certainly supersede all other red currants."

E. S. Carman, editor *Rural New Yorker*: "Your currant is certainly of large size and has comparatively few seeds."

W. J. Peters, of George Peters & Co., Troy, O.: "Never before have I seen such a show of fruit. Acres of rows 40 rods long, with every plant loaded. Much sweeter, milder in flavor, and with fewer seeds than Fays, Victoria or Red Dutch under same culture, though producing a comparatively light crop."

Professor L. H. Bailey: "Am much

pleased with your new currant, especially the small amount of seed which it contains; and in quality it seems to be better and sweeter than Fays or Victoria."

Storrs & Harrison Co.: "We consider them as good in quality as the best."

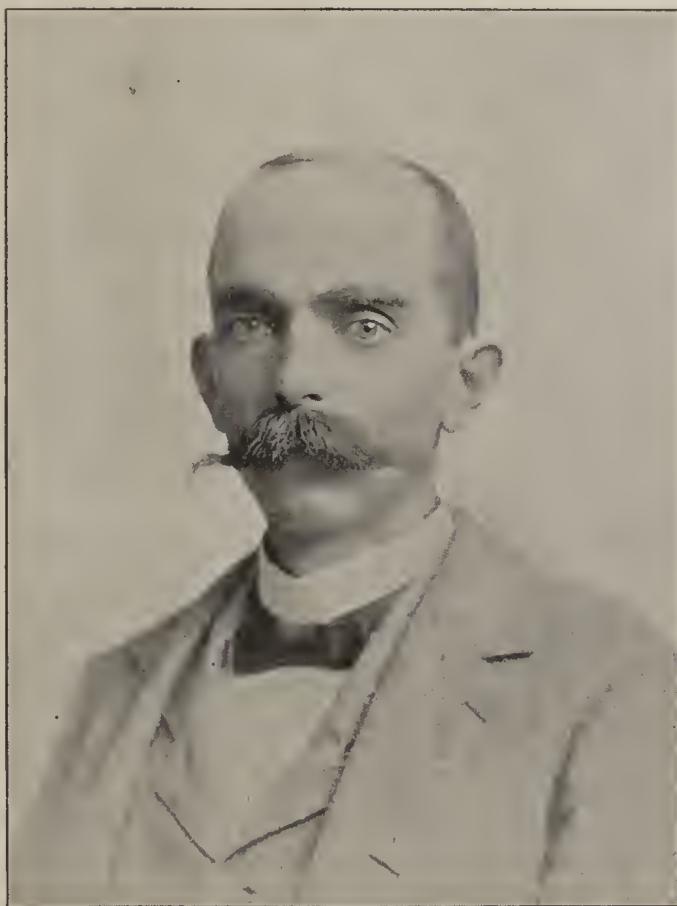
Professor W. C. Latta: "We consider the currant unusually fine in all respects, especially as to flavor and small per cent of seeds."

E. B. Lewis, Lockport, N. Y.: "The currants sent me two years ago bore first crop of fruit this year, 1896. I never saw so large an amount of fruit on so small an amount of wood. Not quite so large as Cherry, and less acid than Cherry or Fays."

DUTY OF EVERY NURSERYMAN.

Oregon Wholesale Nursery Co., A. McGill, Secretary and Treasurer:—"We would not be without THE NATIONAL NURSERYMAN for twice the subscription price. Enclosed are stamps to the amount of \$1. It is the duty of every nurseryman to have your journal."

ELMER SHERWOOD, ODESSA, N. Y.:—"Enclosed find \$1 to renew subscription to THE NATIONAL NURSERYMAN, which is one of the brightest of trade journals."



EMERY ALBERTSON.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Payment in advance required for foreign advertisements.

 Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Entered in the Post Office at Rochester, as second-class matter.

ROCHESTER, N. Y., SEPTEMBER, 1896.

THE RETAIL TRADE.

Through the kindness of prominent dealers we are enabled to present this month a series of special reports regarding the condition of the retail trade. They cannot fail to be of great interest as summarizing the situation during the present season, and the opinions of those actively engaged in the business regarding the outlook for next spring.

It will be noted that in the majority of cases a substantial increase in volume of business is reported, but it seems to be generally believed that this increase is due to redoubled efforts in the way of advertising and constant pushing, and that it is not an evidence of improved trade conditions. The effect of a presidential campaign is felt, and it is believed that general improvement in business will not come until towards spring.

There is evidence, in the opinion of several, that stock in some lines will be cleaned up and cause a brisk demand; while on the other hand it is thought that the apparent overproduction of pears and cherries will reduce prices on such stock. The cheerful tone of most of these reports shows a disposition to look on the bright side and a determination to win out, notwithstanding adverse conditions.

THE HAMBURG EXPOSITION.

The Horticultural Society of Hamburg, Altona and surrounding districts, in Germany, has planned for some time a horticultural exposition for the celebration

of its sixtieth anniversary in 1897. His Munificence, the Burgomaster of Hamburg, Dr. J. G. Monckeberg, has accepted the presidency of the committee on arrangements, which is the board of managers. It is confidently predicted that the exhibition by continuing open during the entire summer of 1897, by the large number of medals and cash premiums, and by the variety of objects admitted, will be the most comprehensive and the most important show that has ever taken place. It will represent every branch of horticulture, arborticulture and floriculture. Exhibits of every nature in any way connected with the many branches of the plant and fruit industries in all their stages are solicited. The amount of funds now in the hands of the exposition management is more than ample. Moreover, if informed in due time, the board will appropriate special premiums for any desirable exhibits not listed in their official programme. Already the official prizes amount to over \$15,000 and special premiums to the same value have been enrolled. As many more are expected to be added, while there are some 3,000 gold and silver medals and many of bronze.

There is to be a space rental charged for machines, fixtures, etc., but all strictly plant or fruit exhibits are free from any space charges.

The Hamburg steamship transport lines from the United States and nearly all other parts of the world will carry all exhibits free of any freight charges, and every effort is being made by all connected with the undertaking to make the exposition unparalleled in the history of horticulture. For location, in facilities, in funds, in government patronage and in men of push and learning, the management is most a mirably equipped and the results cannot be but extremely useful.

The exhibition will open May 1st and will continue through September. The permanent exhibition will include coniferous plants, evergreen plants, deciduous trees, fruit trees, roses, hardy herbaceous perennials, decorative groups, dahlias and cannas, annuals in groups, technical department, garden plants, fruit products, dried flowers and grasses.

The exhibitions will be divided as follows: Spring, May 1-7; first special, May 30-June 3; second special, July 2-6; third special, July 30-August 3; autumn, August 27-September 5; fruit, September 17-30.

TESTED FOR EIGHT YEARS.

Mr. Lambert has tested the Yellow Rambler for eight years before putting it out. It shows a rare and most commendable caution in introducing new specialties. Were all originators possessed of equal patience and carefulness in thoroughly testing their introductions, a great reduction would be made in the number of doubtful novelties that are yearly brought out. The great and distinctive value of the Yellow Rambler lies in its very considerable hardiness, a quality that is so very rare in yellow roses, (except those of the unattractive Austrian type) and so difficult to secure.

VALUE OF NEW VARIETIES.

Charles Wright, of Delaware, writing to the *Rural New-Yorker*, says: Last year a reader said that he was trying the Koonce pear, and Triumph peach, and that the nurseryman fills his pocket with our cash, for the exorbitant prices charged for these new fruits, while the growers wait for years to realize whether they are of any value or not. Does he realize that some toiling originator or experimenter has, prior to this, spent years of hard work and study, and considerable money, in many instances, to produce these fruits, and that failure more often than success, has been his reward? Mr. Husted, the originator of the Triumph peach, has, for years, tried to produce a yellow free-stone peach as early as Amsden or Alexander, and after numerous crosses, and waiting for years to see the result of his labor, it has come. Now, does any fair-minded fruit grower believe that it would be fair for Mr. Husted to grow and sell the Triumph trees for five or six cents, the price usually paid for peach trees? If so, what is to pay him for his time, trouble and cash expended in producing what must become one of the most valuable varieties of peaches yet introduced? The nurserymen who bought this variety from him for propagation, had to pay \$1 per tree, and take a certain number besides. Can they afford to grow and sell these trees at the same price they get for standard varieties? Besides, they must advertise it, and must have many trees left unsold, because it is a new thing, hence the price must cover all these contingencies.

It is but a few years since Crawford's Early was our earliest yellow variety; but now the St. John comes ahead of it, and here is the Triumph still earlier. Whether it will succeed generally, is yet to be decided; but wherever Alexander is a success, it is likely to be. My opinion is that originators and introducers have been poorly paid for what they have done for American horticulture. E. W. Bull, the originator of the Concord grape, died a poor old man, as R. N. Y. readers know, when the discovery of this valuable variety, which made grape growing what it is to-day in this country, should have given him a comfortable fortune at least. Luther Burbank has expended, in five years, \$25,000 in his experiments to produce new and valuable varieties; and is it any wonder that he asks from \$500 to \$2,500 for a single tree of them? Or is it any wonder that a nurseryman buying these fruits for introduction, is compelled to ask a big price in order to meet expenses?

The Wilson and Bubach strawberries, Elberta peach, and Ben Davis apple, were untried novelties a few years ago. The inventor of a harvesting machine or an electric motor dies a millionaire, while the originator of a new fruit can never obtain much more than a fair competency for what it has required just as much brains and labor to produce. An injustice is often done the tree planting public by uneducated and unprincipled tree agents who sell old varieties long after they have ceased to be novelties. Agents are still canvassing this country selling the Kieffer

pear, Elberta and Globe peaches, and Abundance and Burbank plums, as new varieties, at big prices, when any of these may be bought from the average nurseryman for a fair price. Riding out a few days ago I saw a row of apple trees, and asked the man what they were. He said, "I bought them of Mr. H. for Red Astrachan, but they turned out Yellow Transparent." He had set some pear trees, and I asked what he paid for them, "Fifty cents apiece," he said. "I got them from an agent." He is within two or three miles of two first class nurseries, where he could have seen the trees growing, advised with the nurseryman, and got the same trees for ten or twelve cents. Such cases are common, and many of these are the men who get taken in on new varieties, and say they don't amount to anything.

Every fruit grower should certainly test such new varieties as he thinks might suit his conditions, and if he find some of them good, he can tell then how many to plant. If he neglect to do this, some years after, he will be told by some one that he ought to plant such and such a variety, and may go into it on a big scale only to find it is not suited to his needs, when, if he had tested a few trees in the beginning, even at an "exorbitant price," he he would have saved many dollars later on by knowing that it is really worthless.

There are those who believe that fruit growing is not beyond the point where our forefathers found it. These are pessimists of the worst sort, and they constantly contend that it is overdone and can never pay in the future. There is, and always will be, an overproduction of a common quality, and of those sorts that are easily produced by the careless grower. Of the finer varieties that it requires some skill to produce, there is hardly ever overproduction, but often a lack of proper distribution. With the enormous apple crop this season, good apples sell readily in our local market for 35 to 40 cents for a 3-bushel basket, and I am told that the Olden Fruit Co., of Missouri, had recently 20,000 barrels of fine Ben Davis for which they had refused \$2 per barrel. This doesn't look much like overproduction.

HOW WHOLESALE LISTS ARE STARTED.

AUSTIN, TEX., August 14.—I notice that the ruinous policy of sending wholesale lists to retail buyers was discussed at Chicago. I have seen a few such cases and have had one of the causes for such actions brought to my attention.

Jones and Smith are retail growers and live fifty miles apart. They are competitors over several counties. One year Jones is short on some varieties and orders them from Smith, and when the trees arrive in his town they bear tags plainly marked "From Smith." The tattling idlers around the express office notice it and talk about it. Jones feels nettled and humiliated and declares he will buy no more trees from Smith. The next year Smith is short on some stock and orders from Jones, and requests

blank tags be used, but Jones' agents are about the nursery and see the order filled for Smith. The next spring they tell the people that Smith gets nearly all of his trees from Jones. Smith's agents hear the report and tell Smith, and he declares he will let Jones burn his surplus trees before he will again help him to unload them. Then they are both beyond the point of exchanging trees.

The next year Jones hears of Smith sending off for trees he ought to furnish him and Smith hears the same of Jones, and each tries to impress this fact on the other by sending wholesale lists to the neighbors of the other. All this came about by one not being satisfied when he got the other's money for his trees, but wanted some of his reputation also.

Now, I do not mean to say it really hurts a nurseryman's standing to buy or exchange for trees from another reliable nursery. From the way some substitute and mislabel trees, I would consider it a recommendation to hear of them getting in some varieties, but when the fact is told in a tone that is disparaging, it has its influence with the public, and does not tend toward strengthening any fraternal feeling between the nurseries.

I know some nurserymen who will not allow even an express sticker to be put on a wholesale shipment to indicate where it is from, and I have known a nurseryman, when some of his own agents were present to privately hand the tags of a shipment to the driver and tell him to put them on at the express office. There is no genuine and permanent building up based on the pulling down of others. When nurserymen stop to consider that not one-tenth of the inhabitants of the country eat one-fourth as much fruit as they would like to eat, and make it the unselfish and commendable aim of their lives to produce the seventy or eighty per cent. yet necessary, and feel entirely above taking from any honest nurseryman one iota of his hard-earned reputation, we shall enjoy that prosperity, confidence and fraternal feeling we all desire and to which we are entitled. F. T. RAMSEY.

The Jamaica orange crop last season, according to the *American Grocer*, was the largest ever grown there and amounted to 83,140 boxes and a 192,173 barrels of fruit.

The horticultural society of Essex Co., Mich., has petitioned the county council to appoint a county inspector of fruit trees. Some of the townships have such officers, but what was wanted was an officer having extensive powers to prevent the spread of disease among fruit trees by notifying owners what precautions to take and to have the diseased trees destroyed if necessary.

George Klehm, in a paper read before the Chicago Florists' club, said: "Hybrid roses are no longer profitable for florists; the American Beauty and the Meteor have done away with the forcing of most all of the hybrids. We now grow but very few hybrids for flowers, only for nursery trade. The price ought to range from \$1.50 to \$4 per dozen to be profitable, but these prices are generally not to be had now.

Foreign Notes.

Three English nurserymen, George Bunyard, W. Wells and Joseph Sheal have written books on fruit culture.

An international horticultural exhibition will be held in Florence in May, 1897, under auspices of Royal Tuscan Horticultural Society.

At the recent annual exhibition of the National Horticultural Society of France, in the Tuileries gardens, M. Laine received a silver medal for an exhibit of *Canna Italia*, bearing two or three fine flowers of a bright, fiery red color, with a broad border of golden yellow.

Alfred E. Unger, Yokohama, Japan, who has been for some years past the active partner in the firm of L. Boehmer & Co., has now succeeded to the entire control and proprietorship of the concern. He has purchased the interest of Mr. Boehmer, who was compelled by illness to leave Japan a year and a half ago.

Five wild elephants prowling about the Ceylon Botanic Gardens caused considerable damage by tearing up water piping. A group of monkeys invaded the gardens and destroyed a Flame tree, *Sterculia acerifolia*. Sawbeer deer ate and broke down shrubs and it was necessary to rout the animals with packs of hounds.

In view of the possibility of the British and other markets becoming largely supplied in the near future with fruit from Australia, the fruit-growing capabilities of New South Wales form a subject of some interest. According to Mr. Benson, of the Department of Agriculture in that colony, few parts of the world possess greater natural facilities for the production of fruit in greater variety than the colony of New South Wales. Owing to the extent of country, and the great differences of climate, the colonists are enabled to grow every kind of fruit, from mangoes to gooseberries, or, leaving out a few tropical fruits, all the cultivated fruits of the world, and many of such quality and to such perfection that they cannot be excelled elsewhere.

Only those of limited means know of the difficulty that is experienced in obtaining fruit trees of good varieties, and many a cottage garden remains treeless from the sheer inability of the tenant to purchase worked trees, says *Gardener's Chronicle*, London. Moreover, were the demand for fruit trees greatly increased, it could not be met by our present nurserymen, seeing that they now dispose of all they can raise. Why, therefore, should they not advertise the sale of buds on the shoots and scions for grafting in March and April? These, if sold at a penny or twopence per shoot, according to rarity or the reverse, would be readily bought up in a season or two. Stocks of various kinds might also be sold in small numbers at an equally cheap rate, benefiting both nurserymen and cottagers. Once start the cottager in the business of fruit-growing in this cheap fashion, he would in a few years be able himself to become a purchaser of one, two, and three-year old trees and bushes from the nursery.

ANOTHER TEXAS METHOD.

A new method of hudding trees and cutting during the winter, when the sap is dormant, has been reported upon by the Texas station. A slice of bark was cut down the stock and left attached at the lower end. Part of the top of the loose slip was cut off and the bud fitted over the cut place and bound firmly on with a piece of raffia. The stocks were kept in sphagnum moss till spring, when all but one of the fifty young peach trees used in the experiment were found to be heavily "knit" and made strong shoots in the growing season.

A WESTERN JOURNAL'S ADVICE.

A western fruit journal gives the following advice regarding the purchase of eastern nursery stock: "I say, let us ranchers buy from neither a 'New York insect and tree raiser,' or a 'Washington bug and blackberry grower,' or an 'Idaho snail and strawberry planter,' but, let us buy our fruit trees right at home in Montana. Let us band together to get state laws passed so that no one can sell these pestiferous, infectious things to suckers like myself who give them a dollar apiece for their dead and dying—travel-killed—bug coffins. We shall not anyhow have to be paying freight on such monsters as the woolly aphis."

ALL RUSSIAN FRUITS REJECTED.

C. W. Burton, secretary of the Southeastern Horticultural Society, says of the recent meeting of that society:

As regards Russian fruits all the reports, with one exception, were that they are not, as a rule successful, in Southeastern Iowa. Mr. Fultz of Muscatine, says: "Out of ten varieties of Russian pears, which had been struggling along for eleven years, only two during the past season gave their first crop of five or six pears, and I concluded that they are not worth the ground they occupy. Of Russian apples, the Longfield, Yellow Transparent and Tetofsky are the only varieties that are successful in my district. Russian cherries and plums are entirely a failure and are destined for the brush pile." Mr. Langham of Cedar Rapids, says that so far as he has observed, the crop of Russian apples was somewhat favorable. Mr. Miller, of Wapello, Mr. Blodgett of Mt. Pleasant, and Mr. Branson of New Sharon, gave substantially the same report, that nearly every variety of Russian fruit is not successfully grown in the twenty-four southeastern counties in Iowa.

The committee appointed at the Sigourney meeting to report on new fruits worthy of cultivation, reported as follows:

"The making of a rejected list is entirely too great to make in the limited time at our disposal, but in view of the uniformly disappointing reports of this meeting, would recommend that the entire list of Russian fruits be rejected, unless, after further trial, some of them prove worthy. H. W. Lathrop, W. S. Fultz, Samuel Row, A. Branson, Jonas Miller, Committee."

This resolution was adopted unanimously by the society.

FRUITLESS BECAUSE FAITHLESS.

J. O. Barrett, Brown's Valley, Minn., vice-president of the Minnesota State Horticultural Society and secretary of the Minnesota State Forestry Association, concludes a report, as to horticultural conditions in the sixth congressional district, as follows:

"To a great extent I attribute our failures in profitable fruit raising to a lack of bees and other honey-eating insects. We make poor headway raising the clovers, because we have not the bees to fertilize them, and we have a superabundance of field mice that destroy the combs and nests of the bees, and we have not old maids enough to raise cats enough to destroy the field mice, and we have so many fool farmers who struggle to farm it on the prairie without forests to break the winds, bees stay away from us because we build no tree homes for them to live in and get honey from. And so we plod along with 'wheat on the brain' and wild buffalo grass seed in the hair, pocketless, because beeless, and beeless because treeless and cloverless, and fruitless because faithless in diversified agriculture. Success in fruit raising lies in restoring the interlinks in the life chain of being, broken by deforestation and burning over the country we are trying to domesticate. Darwin well says: 'So profound is our ignorance, and so high our presumption, that all marvel when we hear of the extinction of an organic being; and as we do not see the cause, we invoke cataclysms to desolate the world or invent laws on the duration of the forms of life.'"

NEBRASKA HORTICULTURISTS.

The summer meeting of the Nebraska Horticultural Society was held at York, Neb., July 22-23. It was the most successful meeting the society has had in the summer. The rooms were crowded. The addresses and papers were good and the interest was sustained until the close. The display of fruit was especially large and attractive.

Among the nurserymen who exhibited fruit were: E. F. Stephens, Crete, president of the society; Marshall Brothers, Arlington; J. M. Russell & Sons, Wymore; Clyde Barnard, Table Rock; J. P. Dunlap, Dwight; W. R. Harrison, Tecumseh; Youngers & Co., Geneva. C. S. Harrison, of Weeping Water, discussed Rocky Mountain evergreens.

The transactions of the Massachusetts Horticultural Society, part 1, for 1895 have been issued. The report contains the usual large amount of valuable information.

Recent Publications.

As an indication of the increased interest in gardening in England it is noted that the *Gardener's Chronicle*, of London, that able journal of gardening and horticulture, recently published a record number, circulating in the ordinary manner a larger number of copies than ever before, during the fifty-five years the journal has existed. During the last few years the circulation has doubled.

Recent publications by the horticultural division of the Cornell University Agricultural Experiment Station are: "Fruit Brevities" by Professor L. H. Bailey; and "Dwarf Apples" by Professor E. G. Lodeman. The former discusses Packing Houses for Fruit; History of the Ohio Raspberry; The Mistletoe Disease of the Blackberry; Root-galls; Are Dewberries Worth Growing? The Gouni; Winter Injuries, and Crimson Clover for Orchards. Each bulletin is of special interest.

"Familiar Trees and Their Leaves," by F. Schuyler Mathews, has been published by the Appletons. It is another evidence of the practical result of this author's research in the field and wood. The work is well arranged for the amateur and yet it is comprehensive. The author has furnished a ready means of identification of those trees that are most commonly met with, through a series of over 200 well executed drawings of their leaves, made from nature and the accompanying text. The plan followed has been to divide the various leaves into five general classes, which are again sub-divided and under this classification the leaves are arranged in botanical succession throughout the chapters. Two systems of nomenclature are adopted: First, that of Gray's Field, Forest and Garden Botany, relative to the subjects taken from that work; second, a system instituted by Professor C. S. Sargent. A handy alphabetical index of the names of the trees of the Eastern United States is appended, giving popular and botanical names, as well as those of the families to which the subjects mentioned belong. Pp. 320, \$1.75. New York; D. APPLETON & Co.

There has just been published "The Nut Culturist" by the late Andrew S. Fuller, author of "Grape Culturist," "Small Fruit Culturist," "Practical Forestry," "Propagation of Plants," etc. The author of this book has for many years made a careful study of the entire subject and has given in this volume the results of his experiences and investigations. In successive chapters he treats upon the almond, beechnut, castanopsis, chestnut, filbert, hickory and walnut, giving a condensed account of their history, description of all the species and varieties, together with their propagation by seed or otherwise; modes of grafting and budding, transplanting, pruning, gathering and marketing; insect and fungus enemies and the best means of preventing their ravages; and all the important details in regard to the methods and practices for the successful and profitable raising of nuts. The closing chapter is devoted to the description of the fruits which are known in commerce as nuts, and to foreign kinds of nuts which are not grown successfully in the United States. Over 100 original illustrations embellish the volume, and an excellent portrait of the author is presented in the frontispiece. This will no doubt be highly acceptable to the legion of friends and admirers of Mr. Fuller, as it is the first portrait of him that has ever been published. It forms an appropriate accompaniment to this work, which its author has always considered as the most valuable one he has ever written. Pp. 289, \$1.50. New York: ORANGE JUDD CO.

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No. 9.

LITHOGRAPHY'S CENTENNIAL.

Nurserymen have come to be greatly dependent upon the art of the lithographer. It may not be known generally that this year marks the centennial of the discovery of lithography which is commonly ascribed to Alois Senefelder who in 1796 first practiced the art in the printing of music in Munich where he was an actor. The anniversary was appropriately observed by a congress of lithographers of the United States in Philadelphia, at which papers were read and there was an art exhibition and a banquet. Louis Prang, of Boston, gave an interesting account of Senefelder's discovery and application of the art.

Lithography was first introduced in this country in Philadelphia in July, 1819. Since then it has made rapid strides and has become one of the most important of the arts.

The high degree of perfection to which the process of lithographing has been developed within recent years has been extremely beneficial to nurserymen, particularly as regards fine color work in which the greatest success has been achieved by the Rochester Lithographing Company, of Rochester, N. Y.

This company has become widely known and deservedly famous as manufacturers of colored plates of fruits and flowers, both hand painted and lithographed.

This firm is known as pioneer fruit plate makers in the United States, and they still permanently maintain the lead.

New varieties of fruits and flowers are continually being designed from nature, hence their handsomely colored plates are strictly up to date and their stock is the largest in the world, both as to quantity and variety, and every plate either hand painted or lithographed is guaranteed strictly first-class. Originality coupled with artistic work is their motto; and they are everywhere noted for promptness and reliability in meeting every demand.

They also operate a Nursery Supply Department for furnishing printed matter such as horticultural books, catalogues, circulars, blank forms and other supplies required by nurserymen. Catalogues of these supplies are mailed to any address on application and orders are executed in the most expeditious and satisfactory manner in all cases.

The business was founded here many years ago, the present company being incorporated in 1890. Our representative visited their building, No. 176 N. Water street, a few days since and found a most complete equipment with the latest improved machinery and all modern appliances, employment being given to many skilled and expert hands. The art of lithography, in which the colors of any object are analyzed and accurately reproduced from stone is indeed wonderful.

Seedsmen's catalogues and inserts are also a specialty with the Rochester Lithographing Company. Their fruit and flower work is in large and influential demand throughout the United States, Canada, Mexico, Australia and Great Britain, while their general commercial patronage extends to all parts

of New York, Pennsylvania, Ohio, Indiana, Illinois and Massachusetts.

The officers of the company are as follows: President, D. A. MacMillan; secretary and treasurer, M. B. Fox. President MacMillan, a former resident of New York, is superintendent of the factory. He is an expert, being a practical lithographer, while Mr. Fox has the general management of the business and is promoting its interests with energy, discrimination and brilliant success.

SEED DISTRIBUTION, 1896-'97.

The act making appropriations for the Department of Agriculture for the fiscal year ending June 30, 1897, appropriates \$150,000 for the purchase and distribution of valuable seeds. As interpreted by the attorney-general, in an opinion addressed to the secretary of agriculture, dated June 30, 1896, this act requires that the secretary of agriculture shall purchase "seeds prepared for distribution," to the amount of \$130,000 and no less. He is authorized to purchase these seeds at public or private sale, as may be most advantageous for the government.

The same act changes the statute which defines the kind of seed to be purchased so that it now reads as follows:

Section 527.—That the purchase and distribution of vegetable, field and flower seeds, plants, shrubs, vines, bulbs, and cuttings, shall be of the freshest and best obtainable varieties and adapted to general cultivation.

It will be seen, therefore, that only \$20,000 is available for the fiscal year ending June 30, 1897, for the purchase of trees, shrubs, vines, cuttings, and plants, and for all the contingent expenses of distribution by the department of agriculture. In fact the whole of this amount will be required for the contingent expenses, so that there will be no funds available for anything else.

The \$130,000 was so divided as to allow an equal amount (\$288.89) to each congressional district and to each senator and territorial delegate in congress. The amount of money allotted to each section was, therefore, \$288.89 multiplied by its congressional representation.

The lists of flower, field and vegetable seeds adapted to these sections were prepared in conference with the officers of experiment stations and other experts in the respective sections, and a circular explaining the requirements of the department was sent to all the seed houses in the country.

The awards were: For the South Atlantic states, T. W. Wood & Sons, Richmond, Va; Southwestern states, Ullathorne Seed Co., Memphis, Tenn.; Middle Western states, John A. Salzer Seed Co., LaCrosse, Wis.; Eastern states, W. Atlee Burpee, Philadelphia, Pa; Northwestern states, L. L. May & Co., St. Paul, Minn.

Proposals from the Pacific coast seedsmen having failed to arrive in time for consideration, the award for the Pacific and Rocky Mountain section has been necessarily delayed. It is not possible to give exactly the total number of packets of

seeds which will be distributed, but estimating the Pacific section on the basis of the amounts purchased in other sections, it is safe to say that each senator, representative and territorial delegate in congress will have at his disposal (after deducting one-third allotted by law to the secretary of agriculture) nearly 30,000 packets of seeds, or about twice as many as last year. The amount expended for seed last year was \$80,500; it will be seen therefore that the department has this year secured twice as much seed, of greater variety, for considerably less than twice as much money as last year.

D. M. Ferry & Co., seed dealers, Detroit, Mich., have applied to the district courts for an injunction to restrain the secretary of agriculture from the free distribution of seeds by the government. They claim that the business of Ferry & Co. will be damaged \$50,000 by the execution by the act of congress and the sale of 5,000,000 packages of seed taken from the firm.

The complaint asserts that the law is without warrant in the constitution of the United States and in violation of the fundamental principles upon which the government is based, is void and inoperative and confers no right on the secretary or his assistants to enter into any contracts for the purchase or free distribution of seeds or to pay or authorize the payment of any money out of the treasury of the United States for such purpose.

ROYAL HORTICULTURAL SOCIETY.

Distinguished horticulturists of England in August held a conference at the Chester exhibition. Among the nurserymen and horticulturists present were: Sir Trevor Lawrence, Bart., president; Philip Crowley, F. R. S., secretary, and Rev. W. Wilks, M. A., treasurer, of the the Royal Horticultural Society; Thomas Statter, Charles Shea, George Bunyard, Very Rev. S. Reynolds Hole, F. W. Burbridge, George A. Dickson and E. J. Baillie.

Sir Trevor Lawrence read a paper upon "The Royal Horticultural Society of England: Its History and its Works," the following summary of which was made by the *Gardeners' Chronicle*: The inhabitants of Great Britain during the last half-century had grown so accustomed to be surrounded by flowers in town and country alike that they had come to regard the present state of British horticulture as a matter of course; but no one who carried his mind back to the beginning of the century could fail to be struck by the extraordinary progress which gardening had since made. During the century now near its end, trees and shrubs, annuals and perennials, flowers and fruits had been introduced from foreign countries in vast numbers, while the abilities of several generations of gardeners had found full scope for their exertions among a garden-loving people in improving the old, and raising new varieties of garden fruits. After describing the foundation of the society ninety-two years ago through the exertions of Thomas Andrew Knight, and its early history, including the granting of a royal charter in 1809, Sir Trevor said a valuable feature of the society's work, and one which had had a great and enduring influence on British horticulture, lay in the steps taken in 1818 to get from various countries valuable shrubs, plants and seeds. The earliest arrivals came from China and from India through the East India company, and in this way many valuable plants were introduced into Great Britain. The success of these

efforts encouraged the company to send out with great success collectors at their own cost.

Sir Trevor afterwards referred at some length to the vicissitudes through which the society passed after the death of the Prince Consort, until at the end of 1887 a move was made which had the effect of entirely rehabilitating it in public opinion. As to the present position of the society, if it had done anything to repair the errors of the past, and inspire confidence in the future, it had been by sticking resolutely to its last, bearing constantly in mind that the function of horticultural society was to cultivate horticulture, and with a fixed determination to clear off outstanding liabilities and to avoid debt. In reducing the minimum subscription to one guinea, the society was actuated by a desire to enroll among its fellows as large a proportion as possible of the vast numbers of their fellow-subjects who were interested in gardens. The result of this and other changes had been, on the whole, eminently successful, the average annual net increase in the number of fellows being for several years 280, and the total number 3,300, against a maximum, so far as could be ascertained, of 2,500 in the old Chiswick show days. The *Journal* of the society was published regularly, the committees included a large number of the principal horticultural experts in the kingdom, while the great shows of the society, held now for several years in the gardens of the Inner Temple, by the continued kindness of the benchers, had been, in many respects, the finest ever seen in Great Britain. The fortnightly shows were now largely attended, and attracted such a number and variety of exhibits as made it increasingly difficult to find room for them. The society's fruit show at the Crystal Palace bade fair to become an important annual event. The society had spent during the ninety-two years of its existence not less than £400,000. That it had made mistakes and wasted money, its best friends would not deny; but it might confidently be asserted that it had done and was doing good work which no other society could do—work of great value to the community.

HUDSON VALLEY PEAR CROP.

That portion of the Hudson River valley, lying between Albany and New York, has long been conceded to be the greatest pear producing section of the world, supplying New York, Boston and Philadelphia for almost their entire needs, besides supplying some portion of the needs of many European cities, says the *New York World*. The pear crop of this section was unusually large last year, and brought to growers a revenue of several million dollars. Early in the spring this year, appearances indicated a fair crop, and everything was very encouraging until the bud opened, when the "bud moth" and "leaf roller" began their depredations, and held to their course until fully one-half the crop was destroyed. While the pears of this district are not so smooth and attractive as those of California, they are more highly appreciated as being of superior flavor. They are handled and marketed by commission men, being sold to them generally before they are ripe. Last year Canada took about one-half the state's entire crop at \$2.50 per barrel. New York and Boston have secured two-third of this year's crop at \$3 per barrel. These pears are picked, barreled and shipped to New York, and are sold by the barrel without dumping.

SIGNIFICANT POLITICAL STRAW.

Chase Brothers Co., Rochester, N. Y., is one of the best known nursery firms in the United States. It has agents all over the country and the most of these are men who are or have been farmers. The firm has never taken any stand in politics; in fact the politics of the five members of the firm has not been known to the general public. It may be stated, however, that three of the members are republicans while two have always voted the democratic ticket. In common with every other business house the Chase Brothers Company has taken deep interest in the campaign of 1896, knowing that its result would have great bearing on the future commercial interests of the United States. When Bryan was nominated the two democratic members of the firm announced to their associates that they could not support him, and that they would not only vote for McKinley but would do what they could to advance his election.

After several conferences the firm decided to send a circular letter to each of its agents scattered all over the United States, from Maine to Nebraska, asking their individual political preference, also the prevailing sentiment in their localities. It was thought that the replies received would furnish a pretty fair political barometer. It was decided to make the circular entirely non-committal as to the firm's opinions or preferences, so that it could not be said that the replies were colored with a view to the writers retaining their positions. Accordingly Secretary-Treasurer Pitkin, on August 17th despatched this letter to all parts of the country:

To our Salesmen:

We, as all good citizens, feel a deep interest in the result of the presidential election, and are anxious to know something of the opinion and sentiment in the different sections of the country. It has therefore occurred to us that a canvass of our salesmen who are scattered over a large portion of the United States would give a strong indication of the drift of public opinion, and we ask you to answer, if you are willing, the questions below, and return this sheet to us at the earliest opportunity. Your reply will be treated confidentially if you wish. We don't believe in mixing business and politics as a rule, but as it is conceded that the result of the election will make some changes in business conditions, we wish to foresee that result as far as possible, and shape our business plans accordingly, so regard this as a matter of business, not politics.

Yours truly,

CHASE BROTHERS COMPANY.

WILLIAM PITKIN, *Secretary*.

The questions accompanying the letter were as follows:

1. Do you intend to vote for McKinley or Bryan?
2. What is the prevailing sentiment in your locality?
3. How many democrats do you know who will vote for McKinley?
4. How many republicans will vote for Bryan?
5. How many gold democrats will vote for a third ticket if one is nominated?

A few days ago Mr. Pitkin said: "I must confess that when we sent out those letters I was dubious as to what the replies would be. I was afraid they would be all for Bryan. The result has been a welcome disappointment." As Mr. Pitkin spoke he pointed to a large pile of letters beside his desk. "That pile," he said, "contains 238 replies that we have received up to date. Out of the 238, 168 declare unhesitatingly that the writers will vote for McKinley; 50 will vote for Bryan, while 20 say they are on the fence. As would be expected, the Bryan sentiment is principally confined to the West, but even there the McKinley sentiment over-balances that for Bryan. For instance, in Illinois, 21 are for McKinley

to 4 for Bryan. This is especially significant when it is remembered that the Bryan men are making great claims for Wisconsin, and in that state our agents are all farmers. In Indiana 18 are for McKinley to 4 for Bryan. In Iowa there are 5 McKinley men to 1 Bryan adherent. In Ohio the ratio is 19 to 3. Missouri is the only one where there is a preponderance for Bryan. Even in Nebraska out of 3 replies received, 2 are for McKinley to 1 for Bryan."

Following is a compilation of the replies by states:

	McKINLEY.	BRYAN.	DOUBTFUL.
Maine.....	13	2	..
New Hampshire.....	3	..	..
Vermont.....	5	..	..
Massachusetts.....	10	..	1
Rhode Island.....	3	..	..
Connecticut.....	9	2	2
New York.....	23	7	1
Pennsylvania.....	11	3	..
New Jersey.....	6	2	1
Total East.....	83	16	5
Ohio.....	19	3	3
Indiana.....	18	4	2
Michigan.....	9	6	4
Iowa.....	5	1	..
Wisconsin.....	26	13	5
Arkansas.....	..	1	1
Missouri.....	3	5	..
Kansas.....	1	..	..
Minnesota.....	2	..	..
Nebraska.....	2	1	..
Total West.....	85	34	15
Grand Total.....	168	50	20

A CALIFORNIA EXPRESSION.

Leonard Coates, Napa, Cal., says in the *California Fruit Grower*:

"In June last was held in Chicago the twenty-first annual meeting of the American Association of Nurserymen. A perusal of the report cannot fail to benefit both the nurseryman and the fruit grower, as well as the amateur planter. There are listed some three hundred names of members in good standing, and I could find but one name from California. Some discussion was indulged in on legislation, as it affected the nursery business, by the enacting of state laws ordering the quarantining of stock from other states. It seems that Michigan, Maryland and New Jersey have passed laws similar to those adopted in California, but the expressed opinion of a very large majority was strongly opposed to them. Mr. Albaugh of Ohio, criticized the local inspectors by saying that he had been in California, and anyone shipping trees there would have them overhauled by a committee who did not know a curculio from an aphid, or a cherry slug from a tumble bug. That this is absolutely true in many cases can be abundantly verified. Our local inspectors often either know little or nothing, or they appoint deputies who know less. Further than that, it being but small game, they are frequently very small men who fill the offices, who can only pass impartial judgment when it best suits their own interests to do so.

"California holds aloof too much from her horticultural brethren in what we call 'the East,' which means about anywhere that is not California. We are inclined to be hoggish; to think we know it all. Because the climate and soil has caused us to progress, we find our heads swell, and try to persuade ourselves that no one else moves as fast as we. We may wake up to realize our mistake some day."

Among Growers and Dealers.

G. A. Gamble, Harrison, Neb., intends to change his location.

John Charlton, Rochester, N. Y., has returned from his European trip.

Theodore S. Hubbard, Geneva, N. Y., visited Rochester nurserymen last month.

M. H. Reed, Blue Springs, Neb., writes: "Our sales this year are about the same as last fall. I think the prospect for next spring is as good as that of this year, if not better."

Walling & Jarrisch, Oswego, Oregon, report: "Trees have made very good growth and all are clean and free from pests. Have now fifty acres in fruit and ornamental trees."

J. E. Ilgenfritz & Sons, Monroe, Mich., write that their advertisement in the NATIONAL NURSERYMAN for September is entirely satisfactory, and order it continued during October and November.

Tangent, Oregon, is the seat of the Tangent Nursery, H. W. Settlement, manager; the Tangent Prune Nursery, M. L. Foster, manager; the Pacific Nursery Co. All are in active operation, supplying many trees throughout the Northwest.

Newark, N. J., newspapers speak in high terms of praise of the work of the Essex County Park Commission, of which Frederick W. Kelsey, of New York city, is a member. The park system comprises 3,000 acres and ranks with the largest in the world.

Last month George W. Josselyn, Fredonia, N. Y., sent to the annual fruit show at Brocton, N. Y., some samples of Campbell's Early grape. The judges gave this exhibit 96 points out of a possible 100. No other grape at the fair came anywhere near this in number of points.

D. M. Moore, Ogden, Utah: "The demand for nursery stock has been a little slow this fall. I attribute this to the damage done our fruit crop by late spring frosts. Such things make the planters shy. All the Utah nurserymen planted quite heavily last spring and are hoping for better times."

The Griffing Brothers Co., Macclenny, Fla., has been incorporated with a capital stock of \$25,000. The officers are: President, W. D. Griffing; vice-president and general manager, W. C. Griffing; secretary and treasurer, C. M. Griffing; superintendent of propagation, A. M. Griffing. The business was started by W. D. Griffing in 1888.

Herman Schroeder, Bloomington, Ill., writes: "The outlook for farm produce is bad. All kinds of fruit are low in price and grapes are selling at one cent per pound. It makes me cry when I think that 30 and 35 years ago I sold tons of grapes for 25 cents per pound. Even ten years ago I sold them at 10 and 15 cents per pound and I thought then that the bottom had fallen out."

J. G. Harrison & Sons, Berlin, Md., write: "We wish to correct the error that we have 2,000,000 peach trees for immediate sale. We have 200,000. We have over 1,000,000 peach budded this season, and we are not yet through budding, (September 23d); also 50,000 plum on plum, 35,000 plum on peach, 30 acres in strawberry plants and 500,000 asparagus roots ready for our wholesale dealers."

The Hexham (England) "Courant" of August 29th says; "It is with regret that we have to record the death of Mrs. Fell, wife of Mr. W. Fell (of the firm of Messrs. Fell & Co., nurserymen and seedsmen), which took place suddenly from apoplexy on Wednesday last. The deceased lady, who was 49 years of age, leaves a family of six sons. She was kind and generous to all with whom she came in contact, and much sympathy is felt with Mr. Fell and family in their sad and sudden bereavement."

At the trade exhibition at the convention in Cleveland, of the Society of American Florists, the Storrs & Harrison Co., Painesville, Ohio, showed a fine stock of assorted hardy cut phloxes, as well as good blooms of cannas Italia and Austria. C. H. Joosten, New York city, staged a line of hyacinths, Roman and Dutch; good Lillium Harrisii and candidum, freesias, etc.; also small palms, araucarias and florists' supplies, and received honorable mention for a display of bulbs. Benjamin Chase, Derry, N. H., had a large display of labels.

Irving Rouse, Rochester, sent a sample of a seedling peach which

appears to have sufficient merit to be worth propagation. The fruit sent was not large, owing, it was stated, to the fact that the tree was overloaded, many of the branches breaking under the weight. But it was of good color, juicy and of excellent flavor. The tree has borne three heavy annual crops, and in view of the fact that it withstood the exposures of last winter and really overbore while whole orchards surrounding it were killed root and branch, there seems to be sufficient reason for giving it further trial in other situations.

Silas Wilson, Atlantic, Ia., sent samples of the McPike grape. This variety attracts attention at once by reason of the generous proportions of all the parts of the vine. Leaves and fruit are of extraordinary size. For so large a grape the flavor is good. The fruit is firm yet juicy. It is the result of experiments by H. G. McPike, of Alton, Ill., who has been endeavoring as have others to produce a better grape than the Concord. The McPike is a seedling of the Worden, which is a seedling of the Concord. It is declared to be hardy and to ripen earlier than the Concord. It should stand in the front rank of very large grapes.

Nurserymen should all have specimen orchards, if only of one or two trees of a variety, says Leonard Coates, of California. This for their own convenience, as well as for the satisfaction of their customers. One great evil in California is the periodic springing up of a host of so-called "nurserymen," who, whenever prices begin to advance, plant sacks of peach pits and bud a lot of stone fruits. The trees they thus raise are thrown on the market in two years' time, and their main object is to undersell the nurseryman of established reputation, and they demoralize the market by quoting prices below cost of production. They have made nothing themselves, but have injured those who depend upon the business for their living.

George Husmann, the well-known viticulturist advises as follows: "If our friends from Arizona, New Mexico and Texas can furnish grapes for the world's market as early as May and June, our aim should be to furnish the latest keepers. Whether it is already acknowledged or not, California can boast of greater success with her later fruits than her early ones. The time will come when California winter apples, pears and grapes, will spread her fame all over the world. When her Bartlett pears and other summer fruits, now so largely cultivated, will have clogged the markets and her apples, quinces, pears, late plums, and late grapes will bring more money and fame to the grower, than any of the early fruits, which will decay on the hands of the dealers. Look to our late fruits for money."

NOMENCLATURE.

It was, if memory be correct, Prof. Bailey, of Cornell, who sometime since expressed an opinion to the effect that he might perhaps agree to the wholesale changes of names proposed, speaking as a botanist; but he could not from the horticultural standpoint, says *Meehan's Monthly*. It really does look more and more clearly that the botanist and the horticulturist will have to part company. It is found impossible for the nurseryman to change names in his catalogue that have become the current property of his customers and of the world. This will have to be conceded further in the case of marked varieties that the botanist insists are but forms of one species. For instance, the two forms of Silphium which have the stems run through the leaves, so that half a pint of rain water will be held as in a cup, were named Silphium connatum and Silphium perfoliatum. Botanists now refer the former name as but a mere synonym of the other. But, assuredly, if any nurserymen were to send the hispid round-stemmed one to a customer who had already the smooth square-stemmed one, there would be a sharp correspondence thereafter. In like manner, if a customer required the maples Acer Ginnala and Acer nigrum, and the nurseryman responded with the tartaricum and the common Sugar, there would be a storm. And yet in Index Kewensis, Acer Ginnala is given as the same thing as Acer tataricum, and Acer nigrum as the same with Acer saccharinum. It is probably right, from a botanical point of view, that these names should be regarded as mere synonyms; but the horticulturist cannot afford to follow. The trouble will be how to distinguish the botanical from the horticultural department of nomenclature.

WILLIAM FELL.

William Fell, senior partner of the firm of William Fell & Co., royal seedsmen and nurserymen, Hexham, England, who is still in the prime of life, was born near Grange-over-Sands, Westmoreland, England, and completed his education at the Cartmel grammar school in that locality. He received his early training and experience in the nursery and seed trade with the late John Little, of Carlisle, after which he was for some time with A. Cross & Son, seed merchants, Glasgow, and returned to Carlisle just before Mr. Little's death; was advanced to the charge of the seed department, and remained in that establishment after Mr. Little's death for about 10 years.

Seventeen years ago, he succeeded by purchase to the old established nursery and seed business which had so long been conducted by the late Ralph Robson and his predecessors at Hexham. During the past 15 years Mr. Fell has been ably assisted by his partner William Milne in the development of the business, which has now been established considerably upwards of a century, but its greatest development dates from the time that Mr. Fell became head of the firm. Since then the trade has rapidly developed and has gained a world-wide reputation.

Latterly the name of the firm has been much associated with Whinham's Industry gooseberry, which has become a household word among the English, continental and American nurserymen. Mr. Fell has been mainly instrumental in procuring for this gooseberry the universal reputation which it now enjoys. In a few successive seasons the firm received orders for over 1,742,800 bushels of this variety, which were for the greater part exported to America and Canada, although the continent and the British Isles consumed no mean quantity, and we learn that the firm has this season already sold a larger quantity than usual. Mr. Fell has now visited America for seven successive years, and has regularly attended the convention of the American Association of Nurserymen, of which he is a member.

A prominent feature of William Fell & Co's business is the laying out of gardens, parks, cemeteries, etc., and as landscape gardeners they have gained for themselves a high and well-deserved reputation. Among some of the larger contracts, carried out by them latterly, are the planting of about 15 acres of ornamental beltings on the town moor Newcastle for the corporation of that city; the laying out and planting of the extensive grounds of the new lunatic asylum at Ryehope near Sunderland; the planting and ornamenting of about 10 miles on the sides of the new electric railway from Douglas to Laxey in the Isle of Man.

They are extensive rose growers and devote a large amount of their energy in that direction. Forest trees is another of

their most successful lines, while fruit trees, herbaceous plants and all appertaining to the general nursery trade, are grown by them in great quantity.

In 1887 they were appointed seedsmen and nurserymen to H. R. H. the Prince of Wales, after a visit of the royal family to the North of England.

Besides their large nursery trade they are carrying on an extensive and most successful seed trade, where the needs of agriculturists and floriculturists are carefully studied, and where the yearly recurring contracts from England's largest co-operative societies are secured by them in the face of the keenest competition.

Mr. Fell was intimately associated with the founding of the English Arboricultural Society, some thirteen years ago, and is now a vice-president of this institution, a society which has done much good in disseminating practical and scientific knowledge of forestry. It is now a very strong organiza-

tion, having members over a wide area throughout the British Isles, the continent, and including Professor Fernow, of Washington, in its membership. Its importance may be estimated by the fact that this season the annual meeting and excursion covering three days was held in Wales and Chester district, taking in Hawarden, the seat of the Right Honorable William E. Gladstone, who received the members and devoted about half an hour to the society when at Hawarden.

At the Mining, Engineering and Industrial Exhibition held in Newcastle-on-Tyne in 1887, Mr. Fell was elected vice-president of the horticultural and arboricultural sections. During his career Mr. Fell has gained many personal friends as well at home as abroad, and is warmly interested in everything connected with the field of enterprise in which he has so successfully labored and in which he is generally recognized as an expert.



WILLIAM FELL

CEMETERY SUPERINTENDENTS.

The tenth annual convention of the American Association of Cemetery Superintendents was held in St. Louis, September 16th. The following officers were elected: President, George W. Creesy, of Salem, Mass.; vice-president, A. W. Hobert, Minneapolis, Minn.; secretary and treasurer, Frank Eurich, Toledo, O. The newly elected president appointed the following executive committee: William Salway, of Cincinnati, O.; J. C. Cline, Dayton, O.; J. J. Stephens, Columbus, O.

Henry Augustine, Normal, Ill., while at the meeting of the Michigan State Horticultural Society at St. Joseph, Mich, said he did not think that half enough trees were being planted to keep pace with the increasing population of the country, and the increased demand for fruit.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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A GREAT FRUIT EXHIBIT.

One of the most attractive exhibits at the recent New York State Fair was the magnificent fruit display made by the Western New York Horticultural Society. Several years since the officers of the state society, in their desire to secure a larger exhibition of fruits, conceived the idea of offering premiums to societies which have been organized for not less than one year. Subsequent experience has proved the wisdom of such action, for never in the history of the society have there been such immense displays of fruit as since the adoption of the above named plan.

Two organizations have usually competed, viz: The Central New York and the Western New York Horticultural societies. Each of these combinations of fruit growers secured contributions from their members, bringing together so much fruit that on several occasions special tents had to be provided, and even then much fruit remained in the packages in which it was shipped.

Then the state fair officers secured the new horticultural hall, affording better accommodations and comfort to exhibitors. This year the Western New York society was the only organization entered for the \$200 cash prize, and if any other had entered it would have puzzled the authorities to find room. The Western New York society has about 450 members and the contributions to the exhibit were numerous and enough to more than fill the allotted space. Previous exhibits have brought out much fine fruit, but this year's display was, in many respects, superior to any in former years. Of apples there were 91 varieties of as beautiful specimens as could be desired; of pears 67 varieties; plums 40 varieties; native grapes, 40 varieties; hot-house grapes four varieties, and crabs eight. Not being limited to one plate of each, many varieties

were represented by from four to ten plates. All were arranged by H. S. Wiley of Cayuga, who had charge of the display, and he was assisted by John Hall, secretary of the society.

The Western New York society, of course, secured the prize and its members are to be congratulated. As an object lesson to the public such an exhibit is most emphatic and cannot help but act as an educator. People would be much healthier if fruit entered more largely into their diet. It is cheaper than pastry and many of the indigestible articles which are daily crowded into the hard worked stomachs.

We wish to offer a word of exhortation to those fruit growers who are not connected with the Western New York society. A membership fee of one dollar a year brings one in contact with the ablest and most enthusiastic horticulturists of the state, and procures a copy of the annual proceedings, containing papers by professional and practical culturists; also pages of valuable discussions of practical questions.

THE NEW HORTICULTURE.

No book issued this year is of greater interest to nurserymen and horticulturists than that which has just come from the press under the above title. H. M. Stringfellow, of Galveston, Texas, has long been known as a successful horticulturist, and if there were any readers of THE NATIONAL NURSERYMAN who did not know of him until recently, they made his acquaintance through his articles on a new method of treating nursery trees which is so much at variance with long established custom as to attract wide attention.

We have said that this book is of extraordinary interest to nurserymen. It is so for various reasons. It is the compilation of the experience of a nurseryman who has been in the business thirty years and who has profited by that experience as few have profited. With an intense interest in everything that pertains to horticulture, Mr. Stringfellow has advanced by theory and practice and above all by close observation, experiencing failures as have others, yet noting the causes and fearlessly branching out into unheard-of methods the success of which attested his sound judgment. We are not unaware that his latest innovation, a radical method of root pruning, has been subjected to severe and quite general criticism; but we are sure that an unbiased perusal of his book will convince one of the logical nature of his argument and will cause the most skeptical reader to pause and reflect that after all there may be much of truth in the assertions.

With the announcement that Mr. Stringfellow has published a book on "The New Horticulture," following closely upon his articles in horticultural papers throughout the country, there naturally comes the thought that the book is devoted entirely to the subject of those articles, root pruning. As a matter of fact there is but a small portion of the work devoted to this subject. The book is divided into two parts, the first of which comprises the author's experience during the early portion of his career, as a market gardener. And the opening pages of this part are as fascinating as a novel. The entire book is written in a style which is highly creditable to Mr. Stringfellow's ability as a writer. What could be more interesting to his brother nurserymen than the description of the author's conversion from a cotton trade and real estate dealer to a horticulturist one bright morning in April, 1866, through the accidental meeting of a rusty-looking old fisherman on the

Galveston wharf, where as the two sat dangling their legs over the bay and waited for the fish to bite, the old fisherman told how, many years before, on the classic banks of the Rhine he had helped to terrace the rocky hillsides for the vines that produced the wines that have made that section famous; how he was about to make a fortune from his extensive vineyard at Bolivar Point on Galveston Bay when the civil war drove him away, and how fortunes could yet be made in grape growing.

And thus while fishing for trout with shrimps, I was caught myself, with a bait of grapes. Well, the time had passed quickly, though fishing was bad, and after thanking the old man for his pleasant chat, I bade him good-bye, and never saw him again. In our journey from the cradle to the grave, our paths crossed but a single time, and yet in those few hours he had completely changed the whole course of my life. On my way home I stopped in the different book stores to hunt for lore on the grape, and bought the only two books they had. These were soon at my fingers' ends, and not satisfied with learning something about grapes, a desire sprang up to know something about all other fruits and flowers as well, and everything I could find was read. While now completely infatuated with horticulture (and it is wonderful how completely it does capture some people) it is doubtful whether I would ever have made it a business, unless unfortunate speculations in cotton and real estate, just prior to the storm and yellow fever epidemic of '67, had decided the question for me. Those events left me with no bank account against which to draw, so I concluded at once to follow my inclinations, and draw on the sand banks of Galveston Island. Just how those banks will honor a draft if properly endorsed with manure and industry, I leave the old vegetable dealers and residents of the city, who used to visit my home in the West End, to say.

In the succeeding chapters of Part I, Mr. Stringfellow describes in detail what have proved to be exceedingly successful methods of market gardening. In his preface he says that while directly applicable, in some of the details and varieties, to the far South only, many of the suggestions are of general interest all over the country.

In Part II, Mr. Stringfellow states that he presents it with a feeling of confidence that the time is ripe for a new dispensation of horticultural truths, and while they may, with their novelty, startle from their sleepy routine many of the high priests who minister around the altars throughout the country, the kindly reception awarded them in the vicinity of his own home is an earnest of their general adoption in the near future.

The public now demand the best of fruit and they want it cheap. The day of high prices has probably gone forever; and it is a doubtful question whether fruit-growing, with the short-lived, unproductive, diseased and insect-ridden trees of to-day, and their uncertain crops, now pays. To practice the most advanced methods (taught by Mr. Hale, for instance, on peaches, and by others on apples, pears, etc.) requires an expenditure that is often not even covered by the receipts. The amount of nurturing, or "doping" as the turfmen call it on their horses, in the way of cultivation, pruning, thinning, fertilizing and spraying, to make pay an orchard grown from three or four-year old, long, fibrous-rooted trees, is appalling; and when we contrast it with the certain, cheap, easy-going style in which the twenty-year-old Rambo apple tree, mentioned in the last chapter of this volume, brings in the dollars, we may well say, "Hasten the good time when all fruits can thus be grown." That is the mission of this gospel of "The New Horticulture" I now advocate, which, though nominally new, is really as old as the morn in spring in the long, long ago, ages before Eve plucked and Adam ate the apple, when the warm sunbeams kissed the dew from the first modestly opening fruit blooms, whenever that was.

There follow in rapid succession chapters discussing the reasons why it is impossible with generally accepted modern methods to grow as healthy, long-lived and productive fruit trees as our forefathers; plain talks with nurserymen upon old and new methods, backed up by citations of cases in actual

experience; and the author's presentation of his root pruning theory. For all of this we refer the reader to the book. Space here permits only this cursory glance of the subject which in this age of progress would seem to be well worth investigation.

"My object" says Mr. Stringfellow, "has been to show that some of the principles of horticulture to-day are wrong, and also to suggest a more natural, cheaper and better way to grow good fruit than the laborious and expensive methods now in use. While in the analysis of manures and destruction of insects we have made good progress, horticulture has not kept up in the procession with the other arts and sciences, and a little radical shaking up will at least start a spirit of inquiry and experiment."

And so we submit that no nurseryman's library is complete without a copy of this volume by a fellow member of the craft, which we have here referred to purely by reason of its importance in the series of advancing steps which mark the modern days. Certainly the opinions of a man who has the foresight to secure five tons of gunpowder which had been damaged by water, and which the owners were about to throw into the gulf, and to sow it upon four acres of "played-out" ground, because he knew that 75 per cent. of the powder was pure nitrate of potash, the great plant food, reaping wonderful rewards—certainly his opinions are worthy of consideration. His methods may not be adopted at once, but they should be known.

POLITICS AND BUSINESS.

We present in this issue the result of an inquiry conducted by one of the largest nursery firms in the United States regarding the political situation. It is the intention of this journal to keep strictly within the lines which define its character as a trade journal. Such a course precludes the discussion of politics; but it includes reference to fundamental forces which affect the nursery business and it cannot be denied that the questions of the present presidential campaign are of such a nature. The inquiry conducted by Chase Brothers Co. is something with which we have had nothing to do, and we simply record the results as a matter of news of interest to the trade.

PEACH GROWING IN VERMONT.

Grand Isle county is naturally the fruit-growing section of Vermont. Composed wholly of islands and peninsulas in Lake Champlain, it has an atmosphere especially suited to growing fruits of the choicest quality, says a writer in the *Rural New Yorker*.

This is the home of the Vermont Beauty pear, one of the choicest new varieties, and while on my rounds I met J. T. Macomber, in whose orchard now stands the parent tree. Mr. Macomber is one of the leading pomologists of New England, having originated many new and valuable varieties of fruits. Many years ago he tried to raise peaches, but the severity of the winters in this latitude so interfered with the growth of the trees that he never was able to mature good, sound fruit. Some ten or twelve years ago, however, he tried an experiment in training the trunk of the tree to trail along the ground, so as to be able to give it a winter protection.

Obituary.

John Wragg, founder of the Central Nurseries, Waukeet Iowa, and president of the J. Wragg & Sons Company, died September 4th. The funeral took place Sunday, September 6th, from his late residence, two miles south of Waukeet, where he had resided since 1865, and the seat of his horticultural work. For several years he was an invalid and through it all bore up with remarkable fortitude and patience. His mind was clear to the last, and during intervals of his illness he contributed frequently to the press. He has left the heritage of an honored name, an upright citizen and a true horticulturist. He builded on the rock of integrity and the business he so grandly founded will be carried on as heretofore by his sons, who have been its managers for several years, and will be perpetuated to his honor.

We shall miss his cheery and always inspiring voice, says the *Iowa State Register*, during his frequent calls at this office to talk of the development and prospects of the fruit and flower interests of the state. He will be missed at the State Fair, where he has regularly taken a deep interest in the horticultural department, and labored so zealously to make the exhibit attractive and instructive. He will be missed at the State Horticultural meetings, where for over a third of a century his voice has been regularly heard; and on the pages of the annual reports of that society he has left the most complete printed history of his life investigations. He will be missed on all the farms and lawns of Iowa, where his labors will speak for themselves through the fruits, shrubs and flowers. Thus others will reap where he has sown, and the harvest will go on forever.

"Uncle John" first located in Iowa in 1854, in the northern part of the state, but he removed to his home near Waukeet in 1865, and resided there until his death. He was one of the most devoted fruit growers we have ever met, and he frequently expressed to the editor of the *Register* his opinion that Iowa is as good and certain a general fruit state as any other portion of the earth. "All that we need," said he, "is to continue investigating and planting. Trees are killed and die naturally, but so do people and all other things earthly. When even the granite rocks crumble to earth, the people cannot expect to plant an orchard that will produce fruits every year and forever. Plant every year is my plan, and that plan will produce abundant crops. We plant all other crops every year, yet people seem to think that an orchard once planted will live and produce forever. It won't do it. Everything we see dies or decays. Even the forests disappear in accordance with nature's plan." How often have we heard those or similar good and always useful words of counsel from the lips now sealed forever. They are still good counsel, and always will be, and "Uncle John" desired to leave as his last and best counsel: "Plant every year."

SCIENTIFIC HORTICULTURE.

The third expedition of the American Society for the Promotion of Scientific Horticulture is on the southern slope of the Himalaya mountains, to which position it has worked its way from the Island of Formosa, during a year and a half.

The search for orchids is the principal object of the expedition. Besides orchids, however, a number of fruit, ornamental trees, vegetable, flower, and other seeds have been collected

which the society proposes to distribute free to any one interested in the subject of horticulture.

The general object of the expedition is to obtain some seeds of the remarkable vegetation of Asia, and then to acclimatize them to the climate of America. Some of the most enthusiastic members of the society expect by grafting to produce a variety of new fruits from the combination of our domestic and the foreign specimens. The party is in charge of Prof. James A. Craddock, M. A., Ph. D., the pomologist of the society. He has four young men with him. The expedition has been exposed to the usual dangers of trans-Asiatic travel; it has had encounters with the natives of the countries through which it has passed, and has braved the fever that lurks in the night air, not to speak of the insect pests.

George C. Asper, the secretary of the society and organizer of the expedition, lives at 440 West Forty-seventh street, New York city. He is a member of the firm of George C. Asper & Co., the proprietors of the Mohawk Valley Nurseries, at Schenectady, N. Y., and a similar establishment in California. He is considered an authority on horticulture, being a botanist, pomologist, and entomologist. He is delighted with the evident success of the expedition, which he declares is the most successful of any the society has sent out.

The expedition now in Asia left New York in March, 1894. It proceeded to Yokohama, Japan, from San Francisco. The work of research was begun in Formosa and continued there for several months. Specimens received from there are of great beauty.

The American Society for the Promotion of Scientific Horticulture was organized fourteen years ago. The officers are: Maximilian Durand, president; George C. Asper, secretary; James Craddock, pomologist; D. Montgomery Liddell, M. A., Ph. D., entomologist.

SEPTEMBER FRUIT REPORT.

Peaches.—The average condition declined to 42.8. In the commercial states the best crops are found in Delaware, Maryland, Ohio, and Michigan. The quality of the crop has not been up to the average, excepting some fruit from the mountain orchards. Late varieties are now coming into market, but these, too, are small and much damaged by insects. The curculio has proved particularly numerous this season. The condition of the California crop is lower than for many years.

Grapes.—The condition of the grape crop is generally good. In important districts in the East the figures are about what they were last year. New York has the lowest figure in that region (75). Spring frosts are said to have caused the decline there. In the Pacific Coast region the crop is very much below the average, and nearly 20 points under the September condition of last year.

Apples.—The average condition was 67. In Maine, New Hampshire and Vermont the condition was 103; in Michigan, 109; Wisconsin, 102; Massachusetts, 101; Nevada, 100; New York, 97; Pennsylvania, 94; Indiana, 60; Illinois, 72; Minnesota, 94; Iowa, 91; Missouri, 56; Kansas, 49; Nebraska, 69; South Dakota, 93; Ohio, 68; Colorado, 70; Washington, 75; Oregon, 45; California, 52; Rhode Island, 67; Connecticut, 98; Delaware, 23; Maryland, 25; Georgia, 33; Florida, 72.

PARAGON CHESTNUT.

Ten or twelve years ago H. M. Engle & Son, Marietta, Pa., introduced the Paragon chestnut now so well and favorably known. They say of it: "The young trees have always been scarce, as they can only be propagated by grafting, which is always more or less of a failure. Consequently they have been but little advertised, and comparatively few people know anything of it. Each succeeding year only confirms our good opinion of the Paragon and we offer it to the public with every confidence. It can stand on its merits. We believe it will be a profitable thing to grow, as fine chestnuts always meet with ready sale at good prices. They may not pay in as short a time as some fruits, but an orchard once started will last, and increase in value during a lifetime. It has no 'off years' and never fails to produce a crop. It is extremely prolific, and sometimes requires thinning. The trees begin to bear at two or three years from the graft, small trees in the nursery row often having several burrs. In point of quality it is, in the opinion of leading horticulturists, nearly or quite equal to our native chestnuts, which can not be said of the Japan and some other large chestnuts now on the market and clamoring for public favor.

"In point of hardiness it is all that could be desired. There are trees growing at Rochester, New York, and other places in the North, and we have yet to hear that any were injured by cold. They have stood 10 degrees below zero without injury.

"We are often asked when and how to plant. Our experience is that fall planting is generally best, though in sections where the winters are severe it is probably safest to plant in the spring. No particular soil is necessary to grow chestnuts, but it should not be wet or heavy. Soil that will grow peaches or cherries will grow chestnuts.

"The trees we send out are all grafted from the original stock, no seedlings being sent out or propagated from."

Following is an extract from an article on chestnuts by A. S. Fuller in *American Gardening* for November 10th, 1894:

PARAGON. Origin uncertain, but said to have been raised from a foreign nut in the garden of a gentleman residing in Philadelphia. Burrs of extra large size, from four to nearly six inches in diameter, but the spines are enormously long, or about an inch, and are very strong and abundant. The burrs are broad, flat, or slightly depressed on the top, nuts large, broader than deep, smooth, with several very prominent ridges extending from base to apex. Color, dark mahogany, as soon as mature. In quality, much sweeter and of finer grain than the usual run of varieties of European parentage. In growth of tree and productiveness, it is one of the very best of its class. The trees appear to be perfectly hardy here in Northern New Jersey, where a few years ago, they were subjected to a temperature of 20 degrees below zero.

RALLS' GENET.

The promologist of the United States Department of Agriculture writes to *Meehan's Monthly* that the true name of the apple Rawles' Janet is Ralls' Genet. The apple was said to have been named for Monsieur Genet, the minister of the French government to this country during Washington's administration. Monsieur Genet had apples of this kind sent from France for his own use, and Mr. Jefferson so admired them that he procured scions and gave them to Caleb Ralls, a nurseryman of Virginia, for propagation, who introduced the tree under the name of Genet. The apple has also been called the Jefferson Pippin, which authenticates in a measure the fact that Jefferson was connected with its introduction.

Foreign Notes.

A first class certificate was awarded by the fruit committee of the Royal Horticultural Society at the last meeting to a gooseberry named Langley Beauty, exhibited by James Veitch & Sons, Royal Exotic Nurseries, Chelsea. This seedling variety was raised from a cross between Yellow Champagne and Railway, and is another remarkable instance in which the fruits produced by this seedling exceed in size those upon either of the parents. The fruits of the seedling, beside being of first-rate flavor, are of a yellowish color and have some in appearance.

A well-informed writer in *The Gardener's Chronicle* speaks with enthusiasm of the capabilities of Australia, and especially of New South Wales, for fruit-growing, where millions of acres are suitable for the production of almost every description of fruits that can be grown in temperate and sub-tropical countries. Oranges and lemons of all varieties grow well, and they can be delivered in London during those months in the year when there is no supply from Spain or other southern countries. Table grapes in great variety can be profitably exported when packed as they are in Portugal and other countries, while the opportunities for wine-making are almost unlimited. There are also possibilities of building up a large export trade in raisins, dried currants, figs and other staples peculiar to the isles of the Levant and the Grecian peninsula.

EARLY FALL PLANTING.

Joseph Meehan, of Philadelphia, in a recent issue of the *Rural New-Yorker* said: "Every one accustomed to garden work, knows what little time there is in spring to set trees and shrubs. Even though garden work do not press closely, the nurseryman is often unable to ship stock at the proper time. If it were but known how entirely successful early fall planting is, many a farmer would be enjoying beautiful trees and shrubs who now has none. It would be a revelation to many to visit some large nursery in the fall and see the great lot of stock being transplanted. The old plan was to wait till the leaves fell before planting, but it is now well understood that it is better not to wait so long. Just as soon as the wood is well ripened, the functions of the foliage are, practically, over, and the leaves may be stripped from the trees with no harm whatever.

"In these parts, toward the end of August and through September, is an excellent time for the planting of nearly all evergreens, and a month later, for deciduous trees. It has often occurred that I have had to remove trees in September, and, sometimes, these trees have been disturbed again a month or so later; invariably, I found that quantities of roots had formed in that time. The explanation is a simple one. The soil has been made very warm by the summer heat. It is often warmer than the air. This condition of things brings out fibrous roots at once, and the transplanted tree is safe. The leaves are cut off, of course, but as the growth is over and wood ripened, it makes no difference. If a few stems of leaves are left on the twigs, they will drop off clear in a few days if touched, which proclaims the success of the work. If they do not drop off, but wither up on the stem, the tree is not going

to live. But I am sure that few cases of the latter kind will occur.

"Let those who wish to set fruit or ornamental trees, proceed with the work without hesitation when September is on the wane, resting assured that they will have more success than at any other time. What a tree needs to assist it in forming new roots is heat and moisture in the soil. The heat nature places there, but not always the moisture. As a matter of fact, I prefer that the soil be rather dry, as it enables me to ram it in firmly about the roots. After cutting off the foliage, the tree is set in its hole and the earth filled in and rammed in tightly about the roots until the hole is three-fourths filled. Then empty two or three buckets of water in the hole, filling in the remainder of the soil some hours later, without ramming it, and the work is done."

PLUMS AS A SOURCE OF PROFIT.

We are satisfied that there is no place in Minnesota where the European, or what is commonly called the tame plum, can be profitably grown, and, even if they could be grown here, we have no use for them, as we have a better fruit in our best selected natives, says Dewain Cook, Windom, Minn. In that section of country which lies between Lake Michigan and the Missouri river, the finest varieties are found growing wild most everywhere, and I believe that all the hardy natives now prominently before the public originated in this same territory—and we of Minnesota are living in the center of the best native plum region upon earth. Three of the best eating plums known, the Rollingsstone, Mankato and Ocheeda, originated within our borders. With the common wild plum so plentiful, probably not in one town in twenty in our state could a bushel of any of our standard varieties be obtained in their season. I have been unable to even supply the local demand at \$2.00 per bushel. That price or more could no doubt be obtained anywhere in our state. What an opening! No winter killing, no blight and a ready market at good prices!

Recent Publications.

Vivian-Morel has written a brochure on the culture of the chrysanthemum which has been published by Octave Doin, Paris.

There comes from the press of Octave Doin, Paris, another of those delightful treatises upon plants which are as entertaining as a novel. This one is entitled "Nouvelle Méthode de Culture Intensive des Plantes en Appartements." It is by Henri Bloudeau, is dedicated to Madame Fray Gross, chevalier de la Legion d'Honneur, and is introduced by a sonnet on "Science." The work is divided into two parts, theoretical and practical. This book, in a manner not found in English works, discusses the simple methods of propagating plants in houses, giving a list of varieties and detailed methods of treatment, all in the entertaining style of the French author which continually elicits admiration. Pp. 330, 3 F. Paris: OCTAVE DOIN, 8 Place de L'Odéon.

The latest catalogue to reach our desk is that of George S. Josselyn, Fredonia, N. Y. In every feature it suggests modern style. It is printed on enameled paper in the newest type and is a compendium of the choicest varieties of grapes and small fruits. Just at this time Mr. Josselyn is making a special feature of Campbell's Early grape and several pages are devoted to its description and the hearty endorsement of its qualities by the leading nurserymen and pomologists of the country. The frontispiece of the catalogue presents an excellent likeness of the originator of this grape, George W. Campbell, Delaware, O. Upon the back of the cover is a handsome engraving of a cluster of Campbell's Early.

From Various Points.

Some few years ago, says *Meehan's Monthly*, John Feast, nurseryman, of Baltimore, undertook the improvement of our wild rose, *Rosa setigera*—of a number of these, two, the King of the Prairies and Baltimore Belle achieved a wide celebrity. With the passing away of Mr. Feast further advance rested. There is a fine field for some one here. If an everblooming race of prairie roses could be effected it would make any one's fortune.

Experiments on pears at the Canadian Experiment Farm showed that cracking and spotting may be prevented, with great benefit to the trees and fruit, by the timely application of Bordeaux mixture. Experiments were conducted on quite a range of varieties of apples at different places, and the returns show that sprayed trees yielded 45.42 per cent. first-grade apples, 35.94 per cent. seconds, and 18.62 per cent. thirds; while the unsprayed trees averaged 21.42, 42.38 and 36.43 per cent., respectively.

A bulletin of the Rhode Island Experiment Station says of apple orchards in that state: Since the adoption of the spray pump as a means of warfare against the pests of the orchard, apple culture in Rhode Island has received a new impetus and the value of apples as a money crop is again recognized here. Orchards that have been neglected for years are now being pruned and fertilized and growers are vying with each other in the production of this fruit.

The first annual report of the chief fire warden of Minnesota is descriptive of the system of forest preservation in that state. The total amount of white pine is estimated at 14,424,000,000 feet, and of red or Norway pine, 3,412,475,000 feet. In twenty-three counties there are 10,889,000 acres of natural forest, and in the whole state there are 11,890,000 acres of natural forest, not including mere brush and swamp land. The annual cut of pine for each of the past three years is estimated at 1,500,000,000 feet. The consumption of merchantable hardwood lumber in Minnesota is estimated at 100,000,000 feet annually.

YOUNGERS & CO. Geneva, Neb.

For the fall of 1896 we have a large stock of . . .

Apple
Seedlings,

Grown on new land and absolutely free
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Also OSAGE and HONEY LOCUST PLANTS, ROCKY MOUNTAIN DWARF CHERRIES; a large stock of SHADE TREES large and small,

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Correspondence Invited.

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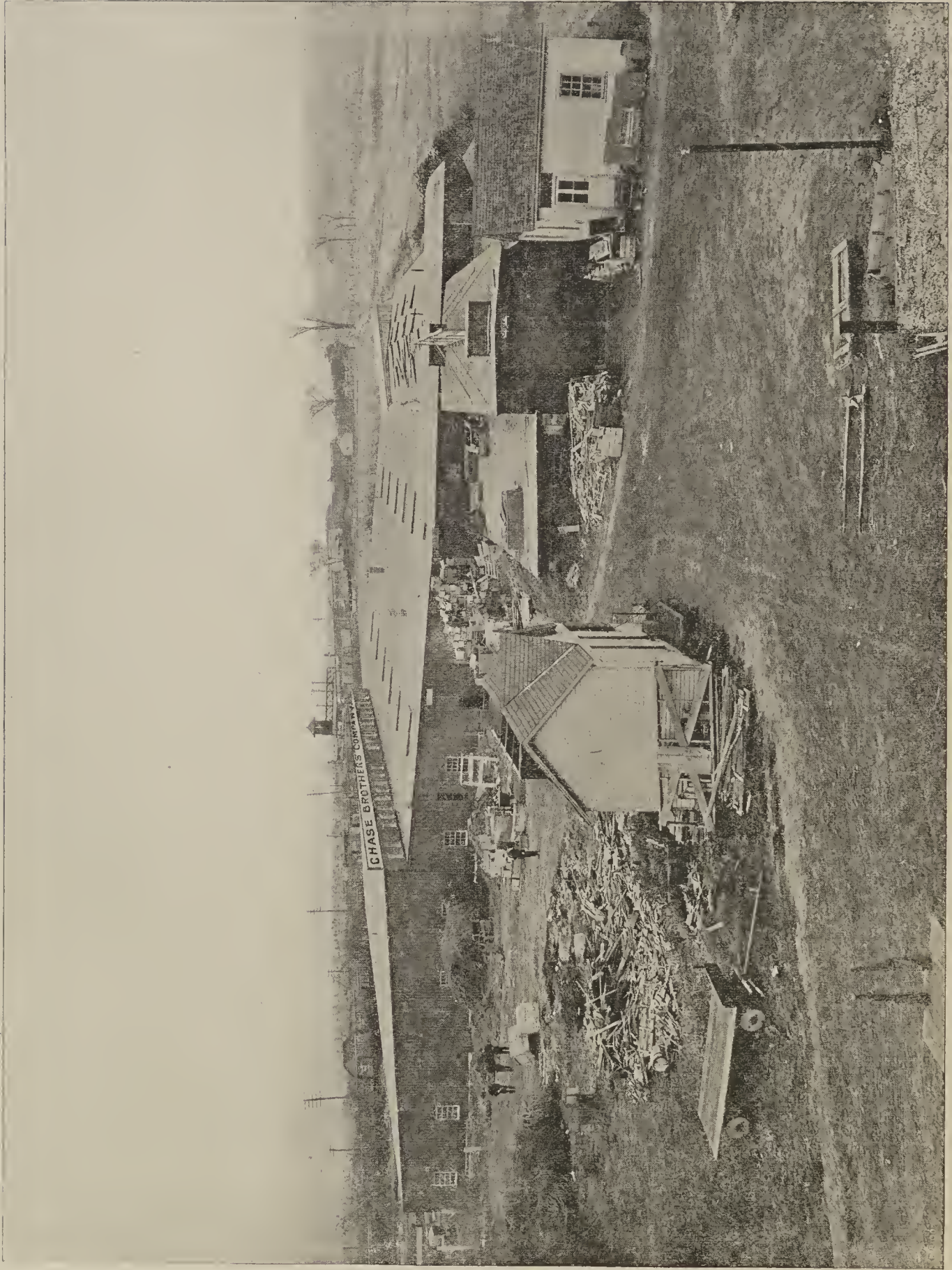
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COVERED PACKING GROUND.

CHASE BROTHERS COMPANY, ROCHESTER, N. Y.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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No. 10.

ALL UNDER COVER.

THE IMMENSE NEW PACKING HOUSE OF THE CHASE BROTHERS COMPANY, AT ROCHESTER, N. Y.

It is pleasant to note the unmistakable evidences of success as the result of persistent endeavor to build up a business on sound principles. The firm of Chase Brothers Company, Rochester, N. Y., is known among the nurserymen and fruit growers of the United States and Canada, as one of the largest nursery firms in existence. It has attained an enviable reputation for strict integrity and sound dealing, the proprietors maintaining from the start that their interests and those of their customers are identical. When such a company, after an experience of thirty years, makes a radical change in its equipment, the subject is one of general interest.

A short time ago a representative of THE NATIONAL NURSERYMAN learned that Chase Brothers Company were making extensive additions to their already well-equipped packing grounds at East Rochester, and upon visiting the grounds, was surprised by the magnitude of the undertaking. It was no less than the construction of a mammoth shed and cellar connecting with the large buildings which have been in use some time, the whole covering more than an acre and a half of ground. The large field, where heretofore hundreds of men have made a busy scene at packing time, has been almost completely covered with buildings, joined so as to form a great enclosure, the whole exceeding in area anything of the kind in the country.

Annoyed by the delay occasioned by inclement weather at the most inopportune time, the members of this company decided to build a packing shed which would enable them to do all their packing, spring and fall, if necessary, under cover, and also enable them to ship much earlier in the spring than before; in fact, making it possible to ship as early as may be required, certainly an important point for their trade in the South and Southwest. With this end in view they visited the packing grounds of the other large nursery concerns in the country and obtained ideas, which, combined with their own extensive experience, enabled them to formulate plans for as nearly a model packing shed and cellar as could be constructed. The result is the big building just completed, which is being used for the first time at this fall's packing.

The new packing shed is 100 x 256 feet in dimensions. It is 17 feet in height, with roof of gradual pitch. It is well lighted by sky lights at frequent intervals. The entire space thus enclosed has been made available for use. At the east end a spur of the New York Central tracks enters the shed and great double doors open to admit freight cars, three of which may be lined up beside a huge platform 80 feet long

within doors, and 80 feet outside, the entire length of 160 feet of platform to be thrown together by the opening of the doors. Thus cars can be loaded entirely under cover. At the opposite end of the shed are big double doors which will admit the largest wagons loaded with trees. There are the usual racks for the division of stock.

The great storage cellar adjoining this shed more nearly resembles a factory. It is brilliantly lighted by means of large windows upon all sides, double windows to exclude frost. As additional precaution, the walls are double, with two air spaces all around the sides and entire roof, and sheathed with heavy paper under the boarding, making three courses of lumber and three courses of paper around the entire building. Two huge stoves will raise the temperature within this building to any desired degree, although it is thought that stoves will be unnecessary except perhaps in the most severe weather. It has been found that an abundance of ventilation is necessary to prevent mildew of stock, and in this respect the building is well arranged. A series of ventilators extend along the top and bottom of the walls, and these are adjustable so as to be closed in case of severe weather. Large double doors connect the new cellar and the new shed, and the shed in turn is connected directly with one of the old cellars.

In the four old cellars the company has an area of 25,000 square feet. The new cellar has an area of 16,000 square feet, the shed 25,600; a total area under cover of 66,600 square feet. Other large firms may have as much or more cellar room, but it is doubtful that any other firm has so great an area under cover.

Just outside the shed is a large power cutter, run by steam, such as is used on western ranches for cutting fodder. It is used by Chase Brothers Company for cutting moss, and it chews up material as rapidly as two men can pitch it in. A carrier transfers the chopped moss to any desired place.

The business which has increased to such an extent as to demand so extensive a plant, was established in 1857 by Chase Brothers, and on July 1st, 1887, the business was reorganized and incorporated under the style of Chase Brothers Company and the directors now are Lewis Chase, president; C. H. Perkins, vice-president; William Pitkin, secretary and treasurer and Henry J. Peck. Their nurseries at Brighton and Pittsford, N. Y., aggregate about 500 acres. The greatest care is taken in cultivation and year by year their planting has increased, until in the spring of 1896 it amounted to 400,000 apples, 450,000 standard pears, 100,000 dwarf pears, 250,000 cherries, 325,000 plums, 1,000,000 peaches, 150,000 currants, 130,000 berries, 550,000 roses and 500,000 ornamental trees and shrubs. Exceptional care is taken in packing, and during the spring season they employ on their packing grounds from 250 to 400 men, and are able to pack and ship from \$25,000 to \$40,000 worth of retail orders each day. Their wholesale trade is large and constantly increasing, reaching from Maine to California, and from Canada to the Gulf, and if we may judge by some of the letters shown us, this department is

handled in a way that holds their customers from year to year.

Their main office is located at No. 1 East Park, Rochester, N. Y., wherein are employed constantly from twenty-five to thirty clerks, bookkeepers, correspondents and stenographers. Their Canadian business is handled from a branch office at Colborne, Ont., under the management of James McGlennon and his son, F. O. McGlennon, who have been with the company for many years. They have a force of about 1,500 agents covering the United States and Canada.

In addition to their nurseries at Brighton and Pittsford, N. Y., they are largely interested in the Alabama Nursery Co. at Huntsville, Ala., whose product commands a ready market through the South and Southwest.

Lewis Chase, the president, who was born in Maine, has long been a prominent citizen of Rochester and a recognized leader in the nursery business. C. H. Perkins, the vice-president, is a resident of Newark, N. Y., and is engaged in the banking business, in addition to his nursery interests, and gives his personal supervision and attention to the large greenhouses and propagating houses and grounds located at Newark, in which are grown this season over 400,000 roses, 75,000 clematis, 300,000 shrubs, besides other stock.

William Pitkin, secretary and treasurer, a native of this city, devotes his time and attention specially to office affairs, and, in addition to his connection with the company, is secretary of the Eastern Nurserymen's Association, and a director of the Central Bank of Rochester.

The company is a member of the Chamber of Commerce, (and represented in its board of trustees by Mr. Pitkin), and of the American Association of Nurserymen, and other trade organizations.

Henry J. Peck, the fourth director, gives his personal attention to the large plantings of the company located in Brighton. He has been a nurseryman since boyhood and his connection with the company dating back to 1870, adds largely to the experience and skill at its command.

THE FIRST NURSERY SALESMAN.

R. Blair, Rochester, N. Y., writes to the *Florist's Exchange* as follows: "In 1846 I came to Monroe County, N. Y., and engaged with a new firm to superintend a nursery in Penfield, N. Y. Soon after I commenced in Penfield, I thought I would like to engage with Messrs. Ellwanger & Barry. I went to Rochester, a distance of seven miles, and secured a fine saddle horse to ride up to see the firm and ascertain if I could get a situation, but, to my surprise, there was no opening for me. I learned afterwards that I put on too much style, and I thought so myself when I came to think of riding a fine saddle horse in looking for a place to work. However, Mr. Ellwanger gave me a word of encouragement by telling me if I would call next spring he would give me a situation if there was an opening. I made a memorandum of the agreement at once. This was in the fall of 1848, and I went to Ellwanger & Barry's office, March, 1849, and engaged with that firm, but not for any particular branch of the business. I was there only a short time when they engaged me to sell trees and plants in the street in front of a store in Rochester, and I did a good paying business—at least I thought so.

"When the spring sales ended, the firm asked me if I

thought I could sell trees on the road. I fell in with the suggestion at once, as I thought it would be nice business. I finally packed my grip in the latter part of May, 1849; I do not remember the date. The nursery catalogue was then a very small affair; I took one with me and started east as far as Geneva. I began to get very nervous, and did not know whether I would call on some one or go home. Finally I made a commencement by calling at a new house where they did not have any trees. I got a small order and that gave me encouragement to look for the next order. I made a thorough canvass between Geneva, Albany, Troy, and Saratoga, and up the canal to Oswego, and with the lack of knowledge I had in taking orders, without considering how they would be delivered—it required all the men at the nursery to make the delivery. I then made up my mind that the work must be more systematic, and afterwards all my deliveries were made by myself and local agents. I continued on the New York Central Railroad and the New York & Erie, before the Erie Railroad was built, for about two years, then I went west into Pennsylvania, Ohio, Kentucky, Indiana, Michigan and Illinois, and continued in the business for about twenty-seven years.

"There are many interesting incidents that I might relate, if I had the time. I will, however, say that before I gave up the business the hotels and country roads were alive with tree venders, many of them reliable men, but by far the greater number were not what they should be. However, I had the advantage of the high standing of the firm I represented. About the first question asked was, 'What firm do you represent?' My answer was always 'Ellwanger & Barry.' That was enough; I got the order.

"I have always believed that I was the first man in America to canvass on the road as a salesman for the sale of nursery stock."

FOREIGN APPLE MARKET.

George Cochrane, of Boston, a well-known exporter, says of early October shipments of apples to England: "It is gratifying to note that all well-conditioned parcels of Baldwins, Kings, 20-ounce, Hubbardstons and like varieties have realized fairly good prices and brought from \$2 to \$2.65 for Baldwins; Hubbardstons \$2.50; while Kings have brought from \$3 to \$4.25. Out-of-conditioned parcels have ranged all the way from \$1 to \$2. The foreign markets have been greatly influenced by the prospects of enormous arrivals from this side which, with the poor landing condition of the early arrivals, have probably forced prices at or near to the minimum.

While it is imprudent to look for anything else than a very low range of prices for the next month or two, it must not be forgotten that the shipments that have arrived out and met these low prices were largely due to the unsuitable varieties, as well as a low standard of quality in matter of selection, and that with shippers realizing, as most are, the importance of sending only the largest and finest fruit, it is reasonable to look for a fairly healthy condition of markets for such fruit.

It is simply out of the question for parties to attempt to ship to foreign markets that are at distances that make the freight into Boston over 40 cents a barrel as long as ocean rates of freight from the seaboard are above 65 cents a barrel."

WHOLESALE TRADE

SPECIAL REPORTS ON FALL SALES FROM VARIOUS PARTS OF THE COUNTRY —PROSPECTS FOR SPRING.

Following are reports from special correspondents regarding the sales among wholesalers during the present season, together with opinions regarding the outlook for spring trade :

MASSACHUSETTS.

READING, MASS., Oct. 15.—Jacob W. Manning, Reading Nursery : "Fall sales are opening very satisfactorily, but are seriously retarded just at present owing to the continuance of bad weather conditions. We expect an average fall and hope for even better."

NEW YORK.

ROCHESTER, N. Y., Oct. 13.—Irving Rouse, Lakeview Nurseries : "Fall business has been very light with us so far, lighter even than we expected, earlier in the season. Prices also have been away down, in many cases below the cost of production. There is, however, a bright outlook for good spring trade, especially if the election goes the right way."

ROCHESTER, N. Y., Oct. 17.—Brown Brothers Company, Continental Nurseries : "We find that business is very good, owing, we believe, to the fact that there is a general opinion that McKinley will be elected. It is a little slow in the West, but we have hopes that it will soon brighten up there."

"We anticipate a very good spring business. We have on hand more spring orders than we had for the same time last year. Our fall sales now in course of delivery are very satisfactory and are about 25 per cent. ahead of those of last fall."

ROCHESTER, N. Y., Oct. 3.—Chase Brothers Co., New England Nurseries : "Our fall delivery of this year will amount to about the same figures as fall of 1895. Spring sales are also about up to last year's figures at this time, and present indications are that we shall sell more goods for spring during the winter than we did a year ago, and that the spring shipments for 1897 will run ahead of 1896."

ROCHESTER, N. Y., Oct. 22.—The H. E. Hooker Company : "Fall trade has not been equal to last year's. Very few dealers from abroad have been seen in Rochester, and the large retail firms here seem to have more stock to sell than they wish to buy. Our business is exclusively wholesale and we have not been among the number who, in their anxiety to unload have sacrificed their stock at panic prices."

"We look for a more healthy state of business in the spring. We know that certain lines of stock are already nearly exhausted and there will be a considerable shortage for spring, and we look for a large demand at advanced rates."

PORTLAND, N. Y., Oct. 10.—C. S. Curtis Co. : "Our sales for fall 1896 aggregate about the same amount as 1895 and 1894. We look forward for a good business for 1897."

GENEVA, N. Y., Oct. 13.—The Geneva Nursery, W. & T. Smith Company : "Sales this fall thus far have been lighter than last season, but prices for most stock have ruled about as last year. We think the stock generally is less than a year ago, with probably the exception of standard pears. There are many less good apples in this market than a year ago, and no large blocks of dwarf pears."

DANSVILLE, N. Y., Oct. 17.—James M. Kennedy : "The trade here this fall from what I can learn is unusually light and with the nurserymen in general the trade is lighter than they anticipated earlier in the spring. The early fall shipments, both wholesale and retail, were at least fifty per cent. less than last fall. The late fall shipments look more favorable. I judge at this writing that all the plum stock will be sold before the end of the season. Of standard and dwarf pears, cherry and apple there is still a good supply on hand, as there seems to be little demand for them. Unless times change soon I do not know what will become of the nursery business. We thought last year we had struck bottom. But it looks now as if there were no bottom. I consider the present prices too low for the grower or planter. Unless the times change by next spring there will be a good many trees carried over or put on the brush pile. But we are all in hopes of better times after election."

"As to the planting next spring, I anticipate that the nurserymen in general will cut off their plantings at least one-half as it will be for the interest of the business. Most of the smaller firms will not plant at all."

ROCHESTER, N. Y., Oct. 24.—Allen L. Wood, Woodlawn Nursery : "I had a very heavy trade this fall. Majority of orders were smaller than last fall, but more of them. Within the last week I have booked several large orders for spring. I expect a heavy trade for spring ; but I think it all depends on election. Prices are lower than last spring. Most every nurseryman has tried to sell what he could for fall at a cut rate. Most buyers only bought for fall. There is less stock in the country than last fall at this time, and I can not see why prices should not go up a little."

NEW JERSEY.

SPRINGFIELD, N. J., Oct. 12.—Flemer & Felmlly : "This has been for us one of the best growing seasons we ever had and we had in everything our usual supply. Our wholesale specialty is peach, shade trees and California privet principally. If prices were only a little better there would be nothing to complain of."

DELAWARE.

BRIDGEVILLE, DEL., Oct. 13.—Myer & Son, Bridgeville Nurseries : "Our fall sales are far better than we expected, owing to the dull times, and up to date we have booked more orders than in years previous, especially on peach, and we think the spring trade will be better than last season which was a good one. We shall carry a good assortment of peach for spring trade as we expect a greater demand with prospects of better prices. We have had a fine growing season and all stock looks well and healthy."

PENNSYLVANIA.

WEST CHESTER, PA., Oct. 13.—Hoopes, Brother & Thomas, Maple Avenue Nurseries : "Up to the present time our fall sales are very much behind those of last season and previous years, and at present the prospect is not a very auspicious one, but as we have still some six or seven weeks to ship in, we may yet be able to make a much better report. We have no means of estimating what they may amount to for spring, but we believe that in case McKinley is elected, of which we have no doubt, they will be as good as usual, though until the nurserymen stop cutting each other's throats, by endeavoring to underbid each other on every list submitted to them, the

aggregate amount will scarcely be enough to pay expenses, which are as great now as they have been for several years."

GERMANTOWN, PA., Oct. 23.—Thomas B. Meehan: "Business has been bad up to this week. It is better now, with prospects of a continued run."

OHIO.

DAYTON, O., Oct. 15.—"Down here in the Miami Valley, we are "getting along as well as could be expected" under the prevailing conditions; even better than early prospects seemed to warrant. The season began amid the rattle of falling prices, so that the average wholesaler did not know "where he was at" all the time. There are a few scarce articles, but the supply of staples appears to be sufficient to meet present requirements. Prices rule weak and low, without an established basis earlier in the season, but now seem to have reached their level and although a low level, yet there is now a generally recognized market rate. Occasionally a frightened holder will grow frantic and flaunt cut-throat rates right and left, but these fellows usually subside without materially effecting the situation.

"In view of the prevailing conditions, the nurserymen of this valley cannot complain of the amount of stock sent out, but have ample occasion to weep bitterly over the prices obtained for it. In view of past results, your correspondent discontinues further predictions respecting the speedy return of good times and living prices, but rests assured of one thing, and that is, we are just one year nearer good times and prices than when we made our last October report."

NEW CARLISLE, O., Oct. 14.—W. N. Scarff: "Our trade to date averages at least 25 per cent. advance over last fall, with prices a shade lower than usual.

"We predict for spring in our line (small fruits, vines etc.,) much stiffer prices, especially on cap varieties of raspberries, blackberries, dewberries and currants, as the supply is far under the average at this date."

INDIANA.

BRIDGEPORT, IND., Oct. 14.—Albertson & Hobbs: "We are just now right in the busiest of our fall packing and hardly know where we stand or how business is going to figure up. Until the 1st of August our agents did good work, but since that time sales have been light; yet our agents' work up to date is nearly 50 per cent. more than it has been for three years and we will have no room to complain if we are able to make anything like reasonable collections on delivery.

"The wholesale trade is hardly up to what it has been other years in amount, though the quantity of stock handled seems to be pretty nearly the same. There has been a very conservative buying, owing to the unsettled situation financially; but, so far as we can see, there seems to be every indication of an excellent business for spring, if this financial question is settled so that confidence can return to business.

"We have never known so great an interest to be taken in commercial planting and all that is holding back is the excitement attending the campaign. Peach seem to be in strong demand, and have had heavier trade on cherry than we expected. Many varieties of apple are also in very strong demand and we shall miss our guess if there is not a pretty heavy shortage in some of these lines in the spring."

ILLINOIS.

NORMAL, ILL., Oct. 21.—W. A. Watson & Co., McLean County Nurseries: "Sales are rather larger this fall than last fall up to this time. There has also been a slight improvement in prices, except on pears and cherries. Apples, plums and peaches are in good demand, and we look for a shortage in all of these before sales close next spring. Small fruit plants are abundant, of good quality, and in fair demand. Prospects for spring trade are good now, and after November 3d we look for constant improvement. With a staple currency and reasonable protection, we can do lots of business at living prices."

MICHIGAN.

KALAMAZOO, MICH., Oct. 17.—Central Michigan Nursery Company: "Our fall sales have been very satisfactory, a reasonable increase over the last season. Our agents report a very unsettled condition in the territory in which we operate and we are of the opinion that the result of the election will have a great influence on spring sales. If McKinley is elected we look for better business than before; if not we are inclined to think that it will be very slow selling."

MINNESOTA.

LAKE CITY, MINN., Oct. 14.—J. Cole Doughty, Secretary Jewell Nursery Co.: "If you can tell us how the election is going, we can make a pretty good guess as to the outcome of the winter canvass. We feel very safe in predicting that in the event of Bryan's election, there will be little or no business transacted in our line. Even though McKinley were elected and confidence restored, it will take some time for the West to overcome the business depression that results from the excitement incident to a political campaign of this character.

"In any event, we shall feel entirely satisfied, if we can place as many goods for spring of '97 as we sold for spring of '96.

"There has been no material change in retail prices, but goods are sold to the trade so extremely low that there is no margin of profit. At present there certainly is no money in the nursery business in the Northwest. Our prediction of six months ago has been sustained although we would have been glad to have been disappointed. We have never prosecuted a canvass that has involved so much labor for the same returns.

"Everything in this section points to the election of the sound money candidates, but business men whose capital is invested, will feel anxious until the results are announced."

KANSAS.

TOPEKA, KAN., Oct. 17.—F. W. Watson & Co.: "Fall sales lighter than last year, with prices very low; a great deal of inquiry for stock for spring and every indication for a heavy spring trade. With the advance in prices of wheat and corn and the election of McKinley, trade cannot help but improve greatly by next season's packing time.

"Prices of apple seedlings are low—lower probably than they will be after grading is started—as the quantity will fall short of estimates very materially owing to so many branched seedlings. Topeka furnished the majority of apple seedlings produced in this country, about 400 acres this year.

"Packing season almost over. Will begin shipping seedlings about the first of November and continue through the winter."

NEBRASKA.

CRETE, NEB., Oct. 15.—E. F. Stephens, Manager of The Crete Nurseries: "The season's trade for us has been more

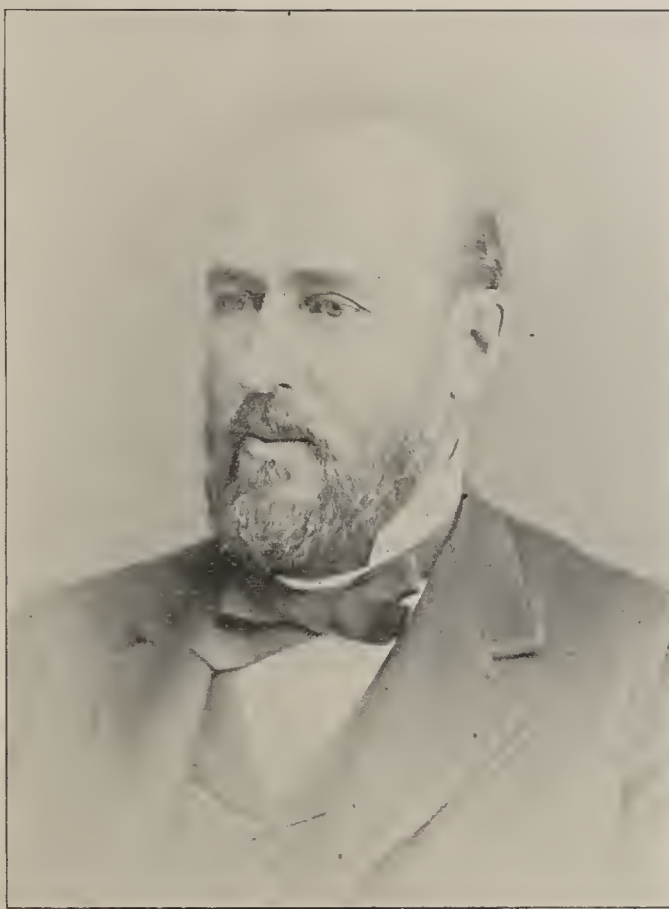
(Continued on Page 128.)

LEWIS CHASE.

Lewis Chase, the president of the Chase Brothers Company, whose photograph is reproduced on this page, might justly be termed the father of the nursery canvassing business in this country, as he started canvassing for the sale of trees in 1857, from which beginning grew the firm of Chase Brothers, later incorporated under the present style of Chase Brothers Company. During this time the canvassing business has been developed to its present mammoth proportions, and in the fore front has always been the concern founded by him. His hand has guided its development and the systematizing of the many details of the retail nursery business. Many of the prosperous firms in the United States and Canada are offshoots of the Chase Brothers Company, and their proprietors received their business education under his tutelage. Many former employes of Chase Brothers Company are now holding responsible positions with other concerns, carrying with them its established and successful system and methods, thus spreading the influence and example of Mr. Chase through the length and breadth of the nursery business of the country.

Born in Oxford County, Maine, in 1830, the earlier years of his life were spent on a Maine farm. In 1856 he, with his brother Ethan, was induced to take up the business of canvassing for the sale of nursery stock as agents, and a year later began to operate on their own account. Successful from the start and working up a large and constantly increasing business, it was soon apparent that for its successful handling they could not depend on other parties for the growing and packing of the stock, and therefore in 1868 the brothers, with their families, moved to Rochester and began the planting and growing of stock on their own account. Increasing steadily year by year, their plantings have now reached enormous proportions, and, with the exception of ornamentals, are probably not now exceeded by any concern in Western New York. These plantings have always been under the personal supervision of Mr. Chase, and the steady increase in the business and the satisfaction voluntarily expressed by thousands of customers, wholesale and retail, are of themselves tributes to his careful oversight and thorough knowledge and watchfulness. The business connection of the brothers continued unbroken until 1895, when Ethan A. Chase, having previously moved to California on account of ill-health, disposed of his Rochester interests, thus terminating a successful business relation of nearly 40 years standing.

In 1890, Lewis Chase established with his brother and nephews, the Alabama Nursery Company of Huntsville, Ala., whose trade in a wholesale way has rapidly increased, and now extends over the entire United States.



LEWIS CHASE.

Mr. Chase was one of the incorporators and original trustees of the Rochester Chamber of Commerce. He is a life member of the American Horticultural Society, a member of the Association of American Nurserymen, Western New York Horticultural Society, Eastern Nurserymen's Association, and other trade organizations, to whom his advice and counsel, founded on long experience, are always welcome.

Physically and mentally vigorous and strong, he is yet able to tire out many of "the boys" during packing season, and bids fair to add many useful and busy years to his already long experience.

NOMENCLATURE.

Mr. MacPherson, the well-known landscape gardener, of Trenton, N. J., is a loyal advocate of Kew methods and is ever ready to defend them. He takes exception to the intimation in the article on nomenclature on page 112, in the last issue of THE NATIONAL NURSERYMAN in which *Meehan's Monthly* quotes a well-known professor on a comparison between nurserymen's catalogues and the Index Kewensis.

Mr. MacPherson says: "The Kew way of putting *Acer* is thus: *Acer Tartaricum*, var. *Ginnala*; and *Acer saccharinum*, var. *nigrum*. No nurseryman's customer need mistake. As for the black maple I have been over acres of Canadian woods and superintended the felling of large numbers by the most expert woodsmen while the trees were in foliage. I especially investigated this variety. The difference lies in the texture of the wood. There is no other difference. Hundreds of trees of *Acer saccharinum* may be examined with the hard and soft varieties mixed and passing into one another, and no man can sort them by any botanical character or aspect. Extreme forms of either may be selected for any trade character desired. So with *Silphium*, the Kew way of putting it is *Silphium perfoliatum*, var. *connatum*. There are a number of nurserymen who will find in time that they cannot afford to disregard the march of events, or indulge their customers with that which is far from veracious. Customers who really know and love their gardens are apt to be better posted on names than some nurserymen, and better informed on statistics of the vegetable kingdom than some professors."

The horticultural department of the international exhibition at Brussels next year will comprise a permanent exhibition extending from May to November, and a series of special shows. That in May will comprise stove, greenhouse, and other plants; in June the exhibition will be devoted to roses; and in October to chrysanthemums. The show arranged for July will be of a general character.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

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ROCHESTER, N. Y., NOVEMBER, 1896.

THE SEASON'S TRADE.

Our reports from all quarters indicate the sale of the usual amount of stock by wholesalers, and in a number of instances an increase of 25 per cent. over sales last fall. As before prices are low. But this was as expected in view of the generally unsettled conditions affecting trade. And this general summary of the season's trade must be accepted as encouraging, for at the opening there was a cry of falling prices and the effect of cut-throat rates, and now that the sales are made, the aggregates show the usual amount of business, with a majority of reports showing a natural increase. The result is due to redoubled efforts.

There is general confidence in an improvement in conditions in the spring. The complaint of great surplus stock is not heard, and the disposition to extend commercial planting is a most favorable indication that with business confidence restored, a return to a period of activity in the nursery business is probable. The prediction is even made that in some staple lines there will be a shortage in stock.

FOR NURSERYMEN ESPECIALLY.

The debt of gratitude the nurserymen owe Professor Liberty H. Bailey, of Ithaca, N. Y., can never be paid. What a store of knowledge he has placed at their disposal. What a wealth of valuable results his original investigations have produced. One marvels at the development of the capabilities of this indefatigable student, earnest advocate and prolific writer. Scarcely have the presses stopped running on the fourth edition of his latest work when they are called upon to start the publication of another of his productions. In rapid succession have appeared his "Annals of Horticulture for 1889, 1890,

1891 and 1892"; "The Horticulturist's Rule Book," several times reissued; "The Nursery Book"; "Cross-Breeding and Hybridizing"; "American Grape Training"; "Field Notes on Apple Culture"; "Talks Afield," etc. The majority of the timely bulletins of the Cornell University Experiment Station, piled high upon our desk, are from his pen directly and all have been issued under his supervision. At the state horticultural meetings in New York, New Jersey, Pennsylvania, Ohio, Michigan and elsewhere, he has appeared repeatedly and delivered addresses on topics horticultural and agricultural, which have been voted as among the most valuable on the programme. And the members of the American Association of Nurserymen know with what pleasure the announcement that he will address their annual convention is received. With his corps of able assistants, including Professor E. C. Lode-man, he is doing grand work for the horticulturist, the farmer and the nurseryman, in imparting instruction under the special appropriation of the New York legislature. Among his latest achievements is the establishment of a "Garden Craft Series" of handy volumes which now include "The Horticulturist's Rule-Book," fourth edition; "Plant Breeding" and "The Nursery Book," third edition; also the "Rural Science Series," including "The Soil" and the "Spraying of Plants." In each of these series several other volumes are in preparation.

And when it is remembered that Professor Bailey's time is further taken up by instruction at Cornell, the contribution of numerous articles to current publications and the care of a very large correspondence, it will be seen that he is a very busy man. He is but 38 years of age. He is a botanist of high rank, having had exceptional facilities for study as the assistant of the late Asa Gray.

When, therefore, a writer of such experience produces such a work as "The Nursery Book: A Complete Guide to the multiplication of Plants," it is worth the while of everyone in the nursery business to give it attention. This is the third edition (The Macmillan Co., New York) of a manual which has become very popular. The author in his preface says that it has seemed best to give a somewhat full discussion of the too-prevalent assumption that graftage is necessarily a devitalizing process, and to analyze the unclassified knowledge respecting the mutual influences of stock and scion, and the respective peculiarities of root-grafted and budded fruit trees. Something has also been said respecting the so-called exhaustion of nursery land, and of various other nursery matters upon which there seems to be much misunderstanding. The nursery list now comprises the notes and suggestions of many correspondents and the results of the experiences and experiment of five additional years (since the first edition).

This statement by the author concisely covers the main features of the new edition. It is a volume of 365 pages replete with all that a hand-book for the nurseryman should contain. The book bears the imprint of the Mt. Pleasant Printery, J. Horace McFarland Co., Harrisburg, Pa., which is a guarantee that the Macmillan Co. has presented it with their usual typographical perfection.

For the week ended September 26th, there were shipped out from the port of Boston 43,925 barrels of apples. Of this amount 27,022 barrels went to Liverpool, 9,777 to Glasgow, and 7,126 to London. None went direct to the continent.

PENNSYLVANIA NURSERYMEN APPEAL.

A despatch to the Philadelphia *Times* from Harrisburg under date of October 21st says: "The nurserymen in this state have been cut off from the Maryland market by the passage of a law by the legislature of that state forbidding trees and nursery stock to come within its borders that are not accompanied by a certificate of the qualified state officer that the stock in the nursery is free from San Jose scale and other dangerous insect pests. The Pennsylvania nurserymen appealed to Secretary of Agriculture Edge for advice and yesterday he appointed a staff of agents to make the required examination and issue certificates showing the condition of nursery stock.

"There is no appropriation to pay the salary and expenses of the agents and they will have to look to the nurserymen who ship trees and other stock for their pay. This will particularly cut Pennsylvania nurserymen off from the Maryland trade, as nearly all the dealers in this state cannot compete with the Maryland dealers on account of the expenses incurred by the examinations. It is strongly suspected that this, rather than the danger of receiving insect pests from Pennsylvania trees, is the cause of the enactment of this law."

BRITISH-GROWN FRUIT.

An audit, prepared by the *Gardener's Magazine*, of the great exhibit of British-grown fruit shows that three more dishes were staged this year than at the exhibition held in 1894, but as compared with last year's show, there was a drop of over one thousand dishes, this decrease being to a material extent due to there having been fewer entries in the great trade classes. The number of dishes staged this year was 2,152, against 3,176 dishes in 1895, a decrease of 1,824 dishes. The decline in the number of varieties was considerable, but not more than might have been expected, considering the large number of varieties that produced good crops last year which in the average season, such as this, bear indifferently. Proceeding to an analysis of the figures we find that 1,083 dishes of apples were staged, against 1,938 dishes last year, and 1,027 dishes in 1894. The numbers of varieties shown in the three years were 168, 201 and 172 respectively. Of pears, 795 dishes in 116 varieties were staged, against 779 dishes and 98 varieties last year, and 629 dishes and 107 varieties in 1894. Grapes ranked next in importance, and of these 135 dishes in 22 varieties were staged, as compared with 97 dishes and 18 varieties in 1895, and 105 dishes and 21 varieties in 1894. This increase in the number of entries in the grape classes was, as shown in the report, accompanied by a material improvement in quality.

In the entries of plums there was a material decrease, only 38 dishes having been staged, against 101 dishes last year, and 90 dishes in 1894. The number of varieties of plums was 16, 28 and 21 respectively. Cherries also show a considerable drop, owing chiefly to the difficulty that has been experienced in keeping the fruit sound, as in the case of the plums, during the long period of wet weather previous to the show. The number of dishes was 6, as compared with 12 in 1895, and 7 in the preceding year, and the number of varieties was 2, against 1 in each of the other two years. Damsons dropped to 4 dishes in as many varieties, against 18 dishes and 7 varieties in 1895. A very large decrease is observable in the

case of peaches, for only 24 dishes were contributed, as compared with 80 dishes in 1895 and 51 dishes in 1894. There were 12 varieties, the same number as in 1894, against 19 last year. Nectarines show even a larger proportional decrease, for 4 dishes were staged, against 18 last year, and 15 in 1894. Of nuts, 19 dishes were staged, as compared with 26 last year; and, on the other hand, there was a considerable increase in the entries of quinces, 17 dishes having been staged, against 14 in 1895 and 6 in 1894.

Among apples, Cox's Orange Pippin, Ribston Pippin, King of Pippins and Warner's King led in the number of dishes displayed; pears, Pitmaston Duchess, Marie Louise, Doyenne du Comice, Beurre Diel and Durondeau; peaches, Sea Eagle and Lady Palmerston; plums, Coe's Golden Drop, Monarch and Bryanston Green Gage; grapes, Muscat of Alexandria, Alicante and Black Hamburg.

THE STORM IN FLORIDA.

MACCLENNY, FLA., Oct. 5.—On September 29th this place was visited by the most severe gale that this section of Florida has ever experienced. For a time all telegraphic communication was cut off. Locally the storm did a great deal of damage to buildings and property. The damage done to the nursery and other property of the Pomona Nursery was comparatively slight, the proprietors, the Griffing Brothers, losing only two tenement houses and a large sixty-foot tool house, in which the tools were somewhat damaged; and the destruction of upwards of two miles of fence. The office buildings, graft room, commissary, packing houses and stables sustained but little damage.

The nursery stock was not damaged in any way further than to have the foliage somewhat bruised from the severe whipping which it received, which caused some of the trees that they would liked to have grown as late in the season as possible to ripen up earlier than they desired. All of their plum, persimmon, mulberries, pears, figs and the greater portion of their peach were not damaged as they were fully matured and ready for immediate shipment. Their facilities for the quick execution of orders were not impaired in any way.

SPINELESS GOOSEBERRY.

A chief feature of the test of the Spineless gooseberry which is offered in large quantities by C. H. Joosten, New York City, is its freedom from mildew. That it has other drawing qualities is evidenced by the reports of well known nurserymen. J. W. Adams & Co., Springfield, Mass., say: "We have not seen any mildew upon them." Edmund Haug, Detroit: "Plants bought of you have made fairly good growth. Have had no trouble with mildew thus far, notwithstanding they were liberally watered." W. H. Salter, Rochester: "My opinion of the Spineless gooseberry is quite favorable. They have made a good growth. I have seen no mildew as yet, and that I consider most important." Joseph H. Black & Co., Hightstown, N. J.: "Notwithstanding the unfavorable season, we find that the Spineless gooseberries have made a fair growth. We have found no rust or mildew upon them."

EUGENE WILLETT & SON, NORTH COLLINS, N. Y.—"Our advertisement in the journal has been very satisfactory."

WHOLESALE TRADE.

(Continued from Page 124.)

than twice as much as last year, mostly, however, for spring delivery. I think that orders for fall delivery generally among the nurserymen of the state have been less than expected owing to the absorbing interest of all of our people in the political contest. Each party has declared to the other that destruction was coming upon us if the other succeeded, causing a great deal of hesitation in making any future plans or purchases for future payment.

"To offset this, however, we have had an abundance of rain over the major portion of the state. Have raised an enormous amount of corn and a large amount of wheat. Oats were light. I think most of our people anticipate as I do, that after the election, which we now feel sure will be for McKinley, there will be an increasing interest in the subject of trees, and that sales for the spring of '97 will be from 50 to 75 per cent. larger than last season. A recent polling of our own town and county shows a steady change from the free silver to the present standard, and we now regard Nebraska as safe for the McKinley column, and that the result will give an excellent impetus to all lines of business.

"The crop of fruit in the eastern and southeastern part of the state is very large. Choice winter apples are selling at from \$1 to \$1.35 a barrel, mostly at \$1.15 to \$1.25. A great many are being bought up and shipped out by the packers, and after fruit has been gathered and passed into second hands we anticipate a marked advance in prices. The fruit is not as free from worms as usual because of the rainy spring, the rain washing away the poison applied in spraying, and many neglected to spray the second and third time as ought to have been done on account of the many rains. Orchards and vineyards have recovered quite generally from periods of severe drought and will go into winter in excellent condition and promise well for next year. There is a surplus of apple trees in our state, but no surplus of anything else in the nursery line."

UTAH.

SALT LAKE CITY, UTAH, Oct. 19.—"We have not commenced fall delivery yet, but do not look for any improvement over last year."

TEXAS.

DENISON, TEX., Oct. 16.—T. V. Munson & Son's Denison Nurseries: "Our packing season does not set in until November 1st. Orders in up to present comport with the business depression. The disturbed state of business brought on and continued by the 16 to 1 craze, combined with the severe and general drought and short crops in the Southwest form an outlook not encouraging for the season's business, but we are trying hard to do our usual share."

GEORGIA.

AUGUSTA, GA., Oct. 20.—P. J. Berckmans, jr., Fruitland Nurseries: "We have filled some large orders, especially in peaches and Japanese plum trees, for which there is an increased demand, because of the remunerative prices realized last summer by those whose orchards escaped the disastrous March frost. Where we sold a thousand trees before we now have orders in for carloads. This shows the enormous increase in peach culture in Georgia and South Carolina. The area of vineyards is largely increased. From South Florida comes a

demand for economic trees, such as camphor, rubber, cinnamon, vanilla, etc., of which we have made some large shipments. Palms and roses are also in increased demand, but the prospects for a prosperous business season depend upon the satisfactory adjustment of the financial question. "Prices for all nursery and greenhouse products remain the same as last year, but the great increase in the supply will doubtless cause every class of plants to depreciate unless they can grade up to the highest possible standard. One of the main causes for the depreciation of prices is the enormous quantities of inferior grades of trees and plants thrown upon the market at whatever price the buyer will offer. This must eventually result in disaster to firms who follow this plan."

MARYLAND.

BERLIN, MD., Oct. 23.—J. G. Harrison & Sons: "Our fall sales have been light on wholesale trade yet. There seems there can't be much business done until the election is over."

VIRGINIA.

RICHMOND, VA., Oct. 14.—W. T. Hood & Co., Old Dominion Nurseries: "Our retail sales for fall delivery are about 25 per cent. larger than they were at same date in '95. Our sales have been more difficult to make, and the increase is entirely due to additional expense incurred and more energetic efforts in pushing the business. From present outlook we do not expect more favorable trade conditions for '97 than we have had in '96."

MARIANNA AND MYROBOLAN.

To bacteria is ascribed by the learned the diseased conditions of the tissues of the bark of so many prune and plum trees. The unlearned think the evil is often due to the blistering rays of the sun. The Chinaman sums it all up in "too much warm." Either or all may be correct. Bordeaux mixture may prevent, or partially remedy the former; timely shading and proper cultivation will probably prevent the two others, but is it not possible that something is wrong with Myrobolan stocks? Why should this one stock be equally adapted to lands light or heavy, atmospheres humid or dry, hill-top or valley? And yet so it has been planted from Oregon to Southern California. The advent of Myrobolan was hailed with delight in the first instance some twenty years ago or more because it "would not sucker." The demand for it grew into a frantic craze, the writer having had letters of all sorts, one demanding "pears" on Myrobolan root, and another insisting that all his trees must be on "Mary Boland!"

It is a fact that nowhere else in the world is this stock so commonly used as in California. It was tried in all the fruit sections throughout the United States and has met with favor. No less an authority than J. H. Hale, who has hundreds of thousands of trees in orchard in Georgia, has discarded it and uses Marianna. This subject should be looked squarely in the face, and is one to which the experiment stations should give more attention. The habit of suckering is but a minor evil, and is generally caused by plowing too deep or too near the trees, some roots being more prone to it than others. So far as my observation goes, I think very highly of the Marianna as a stock. Myrobolan is much the cheapest plum stock. Planters run after cheap trees, from root up. Subsequent returns will doubtless follow in the same line.—LEONARD COATES IN *California Fruit Grower*.

Among Growers and Dealers.

J. L. Russell, Denver, has been made chief of police of that city.

George M. Kellogg, Pleasant Hill, Mo., has recently enlarged his greenhouse room.

W. N. Scarff, New Carlisle, O., disposed of a large quantity of small fruits this fall.

R. G. Chase, Geneva, N. Y., has returned from the Adirondacks. His health is still impaired.

George A. Sweet, Dansville, N. Y., was nominated for congress by the national democratic party.

In another column an orchardist asks rates on 10,000 Kieffer, 30,000 Elberta, 10,000 Japan plums; also small fruits.

An experienced man who can take charge of a nursery may be interested by writing to George J. Spear, Greeley, Colo.

J. H. Hale has shipped 52 cars this season. He will plant 25,000 Japan plums this season and 50,000 early peaches.

William Clark, Colorado Springs, Colo., who planted the 20 acres in Barnum's addition to Denver, owns a gold mine.

Herman Berkhan, the well-known importer, of New York city, visited Rochester nurserymen the middle of last month.

G. L. Taber, Glen St. Mary, Fla., has over 30 varieties of Japanese plums. He carries a full line of Southern grown nursery stock.

George J. Kellogg, Janesville, Wis., and Asa D. Barnes, Waupaca, Wis., had exhibits for which prizes were awarded at the Wisconsin fair.

The eighth semi-annual convention of the Oregon Association of Nurserymen was held at the council chambers, in Salem, Oregon, on October 9th.

The Paragon chestnut is becoming so well known that the demand promises to exceed the supply in the hands of the introducers, H. M. Engle & Son, Marietta, Pa.

"Why, that grape will ship around the world," was the enthusiastic exclamation of a large Brocton vineyardist and extensive shipper, regarding Campbell's Early.

Charles H. Miles recently purchased the Lane greenhouses and nursery at Rutland, Vt. He has made extensive repairs and is prepared to conduct a first-class business.

L. G. Bragg & Co., Kalamazoo, Mich., can furnish in car-load lots, for spring of 1897, apples, pears, plums, cherries, peaches, ornamentals and small fruits, strictly first class.

Ellwanger & Barry have propagated and offer in their new catalogue the Elliot Early pear, which the *Rural New Yorker* pronounces more sprightly and of higher flavor than Wilder Early.

The Oregon Horticultural Commission has given warning to the nurserymen of that state that hereafter no certificates will be issued to nurseries which are not properly clear of pests.

W. N. Scarff, New Carlisle, O., has an attractive surplus list of raspberries, blackberries, currants, gooseberries at rock bottom prices, in another column. He offers fall shipment for spring payment.

Grape vines are a specialty with T. S. Hubbard & Co., Fredonia, N. Y. His stock includes all the old and new

varieties. Mr. Hubbard is widely known as a grower of grape vines and small fruit plants.

A chance to exchange nursery stock for apple trees or grape vines is offered by the Kennesaw Nurseries, Marietta, Ga. They have an immense stock of June-budded peach in Triumph, Sneed and other varieties.

J. E. Killen, representing C. H. Joosten, New York city, the well known importer, called upon Western New York nurserymen last month. He reported business improving and said that the demand for bulbs equals the supply.

The well known rose growers, Dingee & Conard Co., West Grove, Pa., have the largest stock of *Hydrangea paniculata grandiflora* in America. Their fall list included 200,000 plants. They have also made a specialty of *Viburnum plicatum*.

The firm of Thomas Kennedy & Sons, Dansville, N. Y., was dissolved on September 23d, James M. Kennedy retiring. The business will be conducted under the firm name of Thomas Kennedy & Son. James M. Kennedy will continue in the nursery business alone.

Very low prices are asked for the complete line of nursery stocks carried by that well known French firm, Barbier Brothers & Son, successors to the Transon Brothers Nurseries, Orleans, France. The American representatives are Knauth, Nachod & Kuhne, 13 William Street, New York.

The Elm City Nursery Co., New Haven, Conn., has recently purchased a very desirable tract of land for nursery purposes at Westville, a suburb of New Haven, and intends to plant largely ornamental trees, evergreens, shrubs, etc. The members of the company are C. P. Lines and E. F. Coe.

C. H. Joosten, 193 Greenwich St., New York, is pushing the Spineless gooseberry which has attracted much attention and is receiving endorsements upon all sides. Mr. Joosten is confident that this will prove to be the coming gooseberry. Its great advantages due to absence of thorns and freedom from mildew recommend it at once.

To those who are looking for Japan plums and June-budded peach, the Griffing Brothers Co., Macclenny, Fla., offer special inducements. They have 100,000 Japan plums in leading varieties from $\frac{3}{4}$ inch down, at lowest prices; also Triumph, Greensboro, Sneed, Elberta and common varieties of peaches. They deliver in New York, Philadelphia or Baltimore.

Lewis Roesch, of Fredonia, N. Y., made a fine display of nursery stock at the Brocton Fruit Show, says *Fruit*. His exhibit included leading grades of pears, plums, peaches, quinces, currants, gooseberries, and other small fruits, and also ornamentals. He occupied the end of the Floral Hall opposite the grape tables. He was also one of the largest exhibitors of hardy native grapes. His fruit and nursery exhibits are always a prominent feature of the annual fair held by the society.

The Jewell Nursery Co., has prepared a fine display of fruits of Minnesota to be shown in a car to be sent out by the C. M. & St. P. Ry. Co., in the interest of immigration in the Northwest, says the *Minnesota Horticulturist*. As this car will travel extensively, it will serve a very useful purpose for this region. Of course the nursery company is not in this altogether from philanthropic motives, but this move will incidentally work so much good for Minnesota that we may all feel a hearty interest in it.

PHYTOPATHOLOGICAL LAWS.

The United States Department of Agriculture, division of vegetable physiology and pathology, has compiled the phytopathological laws of the United States and Canada under the direction of Erwin F. Smith. This is the information that was asked for at the last meeting of the American Association of Nurserymen. From the bulletin just issued containing this information it is learned that legislation in this country for the restriction of the communicable diseases of plants is scarcely more than 20 years old. It began in Michigan with the peach yellows law of 1875. Most of the states still have no laws whatever bearing on this subject and in the others the laws, with few exceptions, are directed only against special diseases, such as yellows or black knot.

The twelve states which have laws of some sort for the prevention of the spread of plant diseases are as follows: California, a general law; Connecticut, peach yellows; Delaware, peach yellows; Kentucky, black knot of plum and cherry; Maryland, peach yellows; Michigan, peach yellows and black knot of plum and cherry; New Jersey, for a cranberry disease and of general application under special conditions; New York, peach yellows and black knot; Oregon, a general law; Pennsylvania, peach yellows; Virginia, peach yellows; Washington, a general law. It is expected that other states will adopt similar laws.

NEW YORK LAWS.

SEC. 82. No person shall knowingly or wilfully keep any peach, almond, apricot, or nectarine tree affected with a contagious disease known as yellows, or offer for sale or shipment, or sell or ship to others any of the fruit thereof. Nor shall any person knowingly or wilfully keep any plum, cherry, or other trees infected with the contagious disease or fungus known as black knot. Every such tree and the fruit of a tree infected with yellows shall be a public nuisance, and no damages shall be awarded for entering upon premises and destroying such trees and fruit if infected with yellows or for cutting away the diseased part of any tree infected with black knot, or altogether destroying such tree if necessary to suppress such disease, if done in accordance with the provisions of this article. Every person when he becomes aware of the existence of such disease in any tree or fruit owned by him shall forthwith destroy or cause such tree or fruit to be destroyed or the infected part to be cut away.

SEC. 83. When the commissioner of agriculture knows and has reason to believe that any such contagious disease exists, or that there is good reason to believe it exists, or danger is justly apprehended of its introduction in any town or city in the state, he shall forthwith appoint a competent freeholder of such town or city as his agent, who shall hold office during his pleasure and who shall, within ten days after his appointment, file an acceptance of the appointment, with the constitutional oath of office, in the office of the town clerk of the town. Such agent shall on or without complaint, whenever it comes to his notice that either of the diseases known as yellows or black knot exists or is supposed to exist within the limits of the town or city, proceed without delay to examine the trees or fruit supposed to be infected, and if the disease is found to exist a distinguishing mark shall be placed upon the diseased trees. If the disease is black knot such distinguishing mark shall be placed on some affected part of the tree, or if in the judgment

of such agent any such trees should be entirely destroyed, then the trunk of such tree should be thoroughly girdled, and thereupon the owner notified personally, or by a written notice signed by such agent and left at his usual place of residence, or if a non-resident by leaving the notice with the person in charge of the trees or fruit, or in whose possession they may be. Such notice shall contain a statement of all the facts found to exist, with an order to effectually remove and destroy by fire or otherwise the trees or parts of trees so marked and designated within ten days, Sundays excepted, from the day of the service of the notice. In case of fruit so infected the notice shall require the person in whose possession or control it is found to immediately destroy the same or cause it to be done.

SEC. 84. If any person shall refuse or neglect to comply with the order of such agent to remove and destroy trees or parts of trees so marked by him, such agent shall cause such trees or parts of trees to be removed and destroyed forthwith, employing all necessary assistance for that purpose; and such agent or his employees may enter upon any and all premises within the town or city for the purpose of such removal and destruction. Such agent shall be entitled to compensation for his services under this and the preceding sections at a rate of two dollars for each full day spent by him in the discharge of his duties, and the necessary disbursements paid or incurred by him, which, with the expense of removal and destruction of any such trees or fruit, shall be a town charge.

CONNECTICUT LAWS.

SEC. 1. The state board of agriculture shall, within thirty days from the passage of this act, appoint a commissioner on peach yellows, to hold office during the pleasure of said board. Said commissioner may, with the approval of said board and under the provisions of this act, adopt and carry out such plans as may be deemed necessary for the eradication of the disease common to peach trees known as peach yellows.

SEC. 2. At all joint meetings of said board and said commissioner for the purpose of conference the commissioner shall receive pay from the board for his expenses only. Said commissioner may, with the approval of said board, appoint one or more deputies in each county; and when employed in the performance of such duties imposed by this act said commissioner and his deputies shall receive from the state, upon presentation to the comptroller of bills duly sworn to, audited by the auditing committee of the board of agriculture, and approved by the governor, five dollars per day and their expenses.

SEC. 3. Any peach, almond, apricot, or nectarine tree diseased by the yellows, and all fruit from any such diseased tree, is hereby declared a public nuisance, and it shall be the duty of said commissioner or any deputy, under such regulations as the state board of agriculture may adopt or approve of, to order such trees or such fruit destroyed, and upon the failure of the owner to obey such order, to destroy such trees or fruit, and no damage shall be paid to such owner on account of such destruction.

SEC. 4. Any person may, when ordered to destroy any tree or fruit condemned by the said commissioner or deputy, appeal to the state board of agriculture, and said board shall appoint a committee of three experts, which committee shall not include the person who, acting as commissioner or deputy, ordered such tree or fruit destroyed, and the decision of such committee shall be final.

SEC. 5. Any person who shall, while such an appeal is pending, sell any tree from a nursery where there are found to be diseased trees, or any fruit from such tree; or who shall, without such appeal, or after such final decision, refuse to destroy such tree or fruit, shall be fined not less than one hundred nor more than five hundred dollars.

NEW JERSEY LAWS.

SEC. 1. That when the officers of the State Agricultural Experiment Station shall discover any new fungus growth which is doing injury to plants or vines, and while the same is confined to limited areas, they are hereby authorized and empowered to enter upon any lands bearing vines or plants so affected, and destroy the same by fire or otherwise, as they shall deem best.

SEC. 2. That any damage to private property resulting from the operation of destroying the said fungus growth by the officers of the state shall be certified to by them and the amount of damage paid to the owners thereof from the same fund and in the same manner as is paid to owners of diseased animals killed by order of the state board of health.

SEC. 3. That expenditures under this act shall not exceed one thousand dollars in any one year.

Recent Publications.

The catalogue of Thomas Meehan & Sons, Germantown, Pa., for fall 1896, and spring 1897, comports with the high character of the nursery stock which this well-known firm produces. It is a handsome book of 72 pages in a colored embossed cover. Typographically it is beyond criticism, and the care bestowed upon the arrangement of the subject matter bespeaks the hand of a master. It is a handbook of the choicest ornamental stock in use in this and other countries.

Those who heard Professor Bailey's instructive talk at the Chicago convention of the American Association, or who have been fortunate in having their attention directed to his subject on that occasion, the conservation of moisture, will be pleased to learn that there has been issued, under his direction by the Cornell University Experiment Station, Bulletin 120, in which the moisture of the soil and its conservation has been presented in a most interesting and forcible manner, by L. A. Clinton. This bulletin is of inestimable value to all farmers and horticulturists. In Bulletin 119 Professor Bailey states that these bulletins begin a new type of experiment station publication—primary lessons in the cropping of the land. He hopes they do not contain a single new fact. Their sole purpose is to teach, not to discover or to record. Professor Bailey trusts that their perusal will lead to the study of Professor F. H. King's valuable book on "The Soil," published recently by the Macmillan Co., New York.

The Nursery Book by Professor L. H. Bailey, is the latest addition to the "Garden Craft Series," and is referred to in another column. 12 mo., 365 pages, Cloth, \$1. New York: THE MACMILLAN CO.

It was bound to come. And now we have it—a concise yet comprehensive account of the history, principles and practice of the application of liquids and powders to plants for the purpose of destroying insects and fungi. "Spraying" as understood in this connection, is a term which has been in use but a few years, and though much has been written of late regarding the application of fungicides and insecticides it has remained for Professor E. G. Lodeman of Ithaca, N. Y., to publish anything worthy of the name of a treatise on the subject. His new work, "The Spraying of Plants," is the latest addition to the valuable "Rural Science Series," edited by Professor L. H. Bailey. The preface is by Professor B. T. Galloway, of Washington. The table of contents leads one to believe that the author has left no feature of the subject unnoticed. It is a handbook which the nurseryman and horticulturist must have. In it are discussed the early history of liquid applications, spraying in foreign countries and in America, the materials and formulas used in spraying, spraying devices and ma-

chinery, the action of insecticides and fungicides, and description and treatment of the most important insect and fungous diseases affecting cultivated plants, and an appendix giving summaries of laws regarding the spraying of plants. 12 mo., 384 pages. Cloth \$1. New York: THE MACMILLAN CO.

Nurserymen should be deeply interested in a work just issued which will prove indispensable in the study of those botanical questions upon which the investigation of the present day has thrown so much light. This work is entitled "An Illustrated Flora of the Northern United States, Canada and the British Possessions," and is the result of the collaboration of Nathaniel Lord Britton, professor of botany in Columbia University and director-in-chief of New York Botanical Garden, and Hon. Addison Brown, president of the Torrey Botanical Club. It covers the flora from Newfoundland to the parallel of the southern boundary of Virginia, and from the Atlantic Ocean westward to the 102d meridian. The many admirable features of the work are apparent at first sight. Chief of these, aside from the area covered and its timely appearance, is the system of arrangement, classification and thorough revision of previous works in the light of modern adaptation. This work is the first complete illustrated flora published in this country. It is very complete. It is in three large 8vo. volumes, the first of which, now ready, comprises the families of the sub-kingdoms pteridophyta and spermatophyta, from ophioglossaceæ to aizooceæ—ferns to carpet weed. It is the aim of the authors to present this broad subject in the clearest manner possible. In the grouping of species into genera and of genera into families, the practice among the most approved authors has been various. Some have made the number of genera and families as few as possible. This results in associating under one name species or genera that present marked differences among themselves. From the times of Aristotle, Tournefort and Ray, botanists have struggled with the problem of classification, and the marked advances of Linnaeus, De Jussieu, De Candolle and Hooker and Bentham have formed the foundation upon which modern botanists have built. The present tendency of expert opinion is to separate more freely into convenient natural groups, as genera and families, according to similarity of structure, habit, form or appearance. While this increases the number of these divisions, it has the advantage of decreasing the size of the groups, and thus materially facilitates their study. In most instances this view, taken in the work under consideration, has followed the arrangement adopted by Engler and Prantl in their recent work, "Natürliche Pflanzenfamilien," which has just been published in Berlin in 15 volumes. Regarding the important subject of nomenclature, the author says: "The names of genera and species used in this work are in accordance with the code of nomenclature, devised by the Paris Botanical Congress in 1867, as modified by the rules adopted by the Botanical Club of the American Association for the Advancement of Science at the meetings held at Rochester, N. Y., in August, 1892, and at Madison, Wisconsin, in August, 1893." These rules are given in the introduction and are supplemented by a brief explanation of the objects attained by them. There are many special features to commend the arrangement of this work. English names have been given where they are in general use; a simple and consistent style of pronunciation and capitalization has been adopted. In general the work is in every way of the highest class. Typographically it is beautiful. The illustrations are admirable. Clear, compact, comprehensive, they tend to solve the doubts and difficulties that are apt to attend the best written descriptions. There is every indication that the work, so excellently outlined by the contents of the first volume, will fulfill the objects of the authors who say: "The greatest stimulus to observation and study is a clear and intelligible guide; and among the aids to botanical inquiry, a complete illustrated handbook is one of the chief. Thousands of the lovers of plants, on the other hand, who are not botanists and are not familiar with botanical terms or the methods of botanical analysis, will find in the illustrations of a complete work the readiest means of comparison and identification of the plants that grow around them." Large 8vo. pp. XII—612, \$3. New York: CHARLES SCRIBNER'S SONS.

MUST HAVE IT.

E. H. ADAMS & SON, BONHAM NURSERIES, BONHAM, TEX.—"We enclose \$1 for THE NATIONAL NURSERYMAN. Could not well do without it, though times are a little tight."

In Nursery Rows.

There seems to be a growing tendency to ship fruit to England. Can you tell me what the cost of transportation is, and how apples are sold in the English market. T. R. B.

The New York State Department of Agriculture recently issued a circular upon this subject. It covers the ground so well that we quote as follows: Ocean freight charges are from New York to Liverpool, two shillings and sixpence, to Glasgow, three shillings, English money, per barrel, sometimes less and sometimes more, according to the quantity of freight going over. There is a charge of dock and town dues, etc., insurance, and five per cent. commission to be added, that will make the cost from 85 cents to \$1 per barrel; a little more when shipped to London. As soon as steamer arrives, the different varieties and marks are sorted, and they are offered for sale at auction. At the first day's sale, they are sold as "sound." They are delivered within twenty-four hours after sale, and any barrels in which the apples are loose, called "slack packed," and those from which the juice is running, called "wet," are sold at the succeeding sale. Two barrels of a mark are taken out of the lot, one is opened to show the packing, the other is turned into baskets or into a large box, so that all the fruit in the barrel can be seen. Buyers have opportunity to inspect these samples and obtain a record of the marks before the sale begins. Catalogues being prepared for this purpose, each auctioneer is given a limited amount of time in which to sell his line of goods, and frequently, in thirty minutes, over 15,000 barrels of apples are sold. As soon as fruit is sold, the prices are cabled over to the American agents, by some of the firms, and checks are forwarded to the shippers promptly, so that returns are made nearly as quickly from foreign markets as from our own.

When and why were Russian apples introduced in this country, and are they desirable? H. G. R. Co.

Russian apples were introduced in America because it was found that the climate in the Northwest is too cold and too dry for the apples of the eastern states. There has been much discussion as to their value. In this journal not long ago both sides of the controversy were stated by Professor Budd and C. L. Watrous, of Iowa. Professor Bailey says: "In 1870 the Department of Agriculture at Washington imported scions of many varieties of apples from Russia; but these did not satisfy many fruit growers of the northern states. It was then conceived that the great interior plain of

Russia should yield apples adapted to the upper Mississippi valley, whilst those already imported had come from the sea-board territory. Accordingly, early in the eighties, Charles Gibb, of the Province of Quebec, and Professor Budd, of Iowa, went to Russia to introduce the promising fruits of the central plain. The result has been a most interesting one to the pacific looker-on. There are ardent advocates of the Russian varieties, and there are others who see nothing good in them. There are those who believe that all progress must come by securing seedlings from the hardiest varieties of the eastern states; there are others who would derive everything from the Siberian crabs, and still others who believe that the final result lies in improving the native crabs. There is no end of discussion and cross purposes. In the meantime nature is quietly doing the work. Here is a good seedling of some old variety; there is a good one from some Russian; and now and then one from the crab stocks. The new varieties are supplanting the old so quietly that few people are aware of it; and by the time the contestants are done disputing, it will be found that there are no Russians and no eastern apples, but a brood of northwestern apples which have grown out of the old confusion. All these new apples are simply seedlings, almost all of them chance trees which come up here and there wherever man has allowed nature a bit of ground upon which to make garden as she likes. In 1892 there were 878 varieties of apples offered for sale by American nurserymen, and it is doubtful if one in the whole lot was the result of any attempt on the part of the originator to produce a variety with definite qualities."

Surplus Stock.

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RASPBERRIES.

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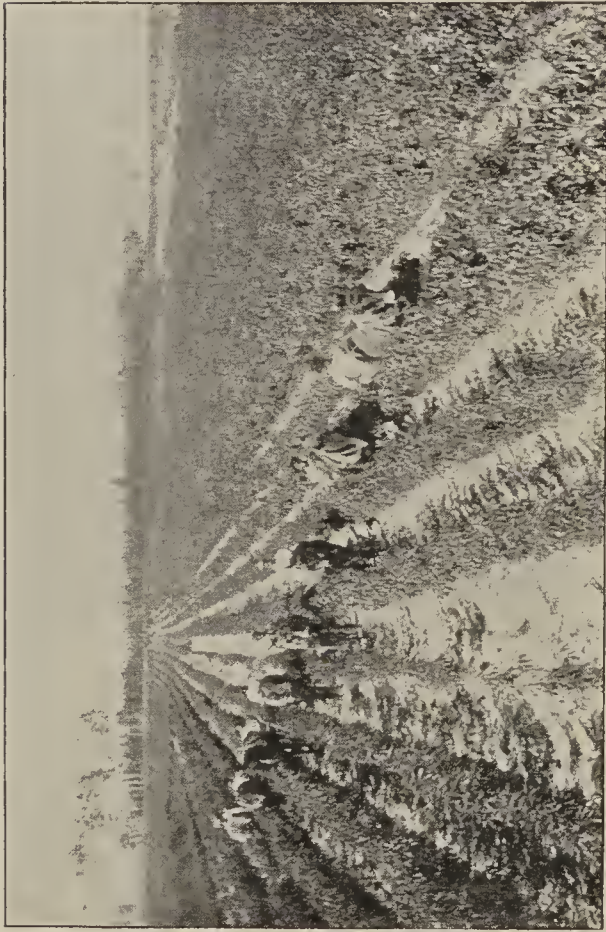
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FOR GROWERS AND DEALERS IN NURSERY STOCK.

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No. 11.

MARYLAND LAW.

ITS ENFORCEMENT CUTS OFF THE MARKET —NURSERYMEN STATE THEIR CASE— ENTOMOLOGIST'S BULLETIN.

In our last issue we published a despatch from Harrisburg to the Philadelphia *Times* calling attention to the operation of the Maryland nursery law requiring certificates as to the freedom from insects or disease of all stock shipped into Maryland. The enforcement of this law has had the effect of cutting off the Maryland market from many growers and it caused the nurserymen of Pennsylvania to speak out. They found it necessary to pay for the cost of inspection of stock by a staff of agents appointed by the state secretary of agriculture, for the purpose of securing certificates.

The controversy is the latest phase of a subject brought up by E. H. Bissell, of Richmond, Va., at the last annual meeting of the American Association of Nurserymen. Mr. Bissell, J. Van Lindley, Pomona, N. C., and others were anxious that the association should by resolution condemn the action of the Maryland legislature. Mr. Watrous thought the resident members should act, inasmuch as the law in question was not a national law.

Finally the association adopted the following resolution :

"Resolved, that all laws enacted by states, discriminating against nursery products, shipped into such state from other states, are hereby condemned by this association as unfair and unjust to interstate commerce and in every way objectionable, and we ask the repeal of all such laws."

The Maryland law is very stringent. It was published in the August issue of THE NATIONAL NURSERYMAN. We give herewith the statement of the Maryland nurserymen at a meeting in Baltimore, an account of which is presented by the *Baltimore American* of October 9th :

MARYLAND NURSERYMEN REPLY.

A meeting of representative Maryland nurserymen was held in this city yesterday, to take some action to contradict the prevalent opinion among nurserymen in other states that the nurserymen here had the Maryland trees and nursery stock law passed by the last legislature for the purpose of injuring the business of these foreign nurserymen. The law, as a matter of fact, was passed without the knowledge of the nurserymen, and they only desire to use it to prevent the shipping to this state of plants infected with San Jose scale, peach yellows, rosette or other dangerous insect or plant diseases.

To correct this false impression the following resolution was adopted :

"In view of the fact that there has been some misunderstanding on the part of many nurserymen outside this state regarding the Maryland trees and nursery stock law ; be it

"Resolved, that we state positively that we had nothing whatever to do with the formulation and passage of the Maryland trees and nursery stock law ; that we do not want to debar or exclude any nurserymen outside this state from doing business in our state ; and that we do not want to interfere with interstate commerce or any other legitimate business."

There are a number of imperfections in the present law, they say, and it is desired that these be corrected ; so that it was decided to call a meeting of the nurserymen and the horticultural people of the state before the next session of the legislature. At this meeting the present law will be discussed, and a draft of a new law will be prepared.

Professor W. G. Johnson, the state entomologist, was present at the meeting yesterday, and brought to its attention a letter which he had received from Professor W. B. Alwood, the vice-director of the State Agricultural Experiment Station, located at Blacksburg, Va. The letter intimated that, in the opinion of the writer, the object of the law was merely to harass outside nurserymen, and to prevent their doing business in this state. The letter also said that the writer might retaliate, if the provisions of the law were strictly enforced. Professor Johnson replied to this by stating that not only did the nurserymen not have anything to do with the passage of the law, but it was their desire merely to prevent the spread of plant diseases in this state, and not to prevent any nurseryman from doing business in this state. Professor Alwood stated in his letter that it might be that the scale was prevalent in Maryland. While this is so to some extent, it is also true that Professor Johnson has inspected the eighteen nurseries of the state, where there are some 14,000,000 growing plants, and has given them certificates of inspection, showing that they are free from disease, and he has filed these certificates with Governor Lowndes, at Annapolis.

DOES NOT DISCRIMINATE.

It was stated at the meeting that the law does not discriminate against out-of-state nurserymen. It requires them (section 58) to have certificates of inspection on each package, stating that the plants are free from disease, and if this certificate is not on the package, requires an inspection by the state entomologist, in default of which the package is to be burned. The burning is the only penalty attached to the violation of the law by out-of-state nurserymen. On the other hand, section 54 of the law provides for a penalty of one hundred dollars for each and every package that is shipped by a nurseryman in this state which has not on it a certificate that "the whole and every part of such package has been examined by the state entomologist, and is entirely free from all San Jose scale, yellows, rosette, and every other insect or disease." It was the opinion of those present at the meeting that a perusal of these two sections will convince any one that the nurserymen here do not wish to discriminate against any one.

Professor Johnson stated that he had received a number of certificates from nurserymen out of this state, which said that their stock is free from disease. He was of the opinion that as

soon as the intent of the law—that it is only meant to stop the spread of and stamp out disease was understood, it would be gladly and cheerfully complied with by every nurseryman who had the interest of his business at heart.

ENTOMOLOGIST'S STATEMENT.

W. G. Johnson, state entomologist of Maryland, issued a bulletin in October upon the subject of nursery stock, in which he stated that while inspecting the nurseries of the state he found that many nurserymen and dealers in nursery stock were not cognizant of the fact that the general assembly had passed a law providing for the suppression of disease and insect pests in nursery stock. Therefore he deemed it important to set forth in the bulletin the provisions of the law.

Commenting upon the enforcement of the law, Professor Johnson says: "Every person within this state who has bought or contemplates buying nursery stock of any kind this fall or next spring should bear in mind the provisions of this act, and insist on a certificate of inspection covering each and every package. Especial attention should be paid to nursery stock coming from outside the state. The dangerous San Jose scale in nine-tenths of the infested districts of this state has been traced to trees coming from other states. Too much care cannot be taken in this matter, and if there is the least suspicion that the stock is not as represented, upon notification, I will proceed to the premises designated and make the necessary examination of the material in question."

FORM OF CERTIFICATE.

"I have suggested" says Professor Johnson "that nurserymen of this state use the following, or a similar form of certificate, on their shipping tags:

.....1896.
I hereby certify that the trees or plants shipped to.....
County of....., State of Maryland, have been duly
examined by Prof. W. G. Johnson, State Entomologist, and pronounced
by him as showing no indication of the presence of the San Jose scale,
Peach Yellows, Rosette, or other dangerous insects or plant diseases
that might be transferred on nursery stock from the nursery to the
orchard or garden.

.....
Consignor.

"Several nurserymen outside this state have made inquiry regarding the Maryland law, and have had their nurseries examined by entomologists, copies of whose certificate have been placed on file in this office. If for any reason a purchaser buying nursery stock direct from the nursery, or through some local or traveling agent, should doubt the authenticity of the certificate attached to such stock, the matter should be referred to this office without delay.

"Nurserymen should be exceedingly careful about buying buds or stock of any kind from nurserymen outside this state. One instance has come to my notice this season where the San Jose scale was brought into this state on buds bought from a nursery firm in a neighboring state. This should be a signal of alarm to other firms, and extra care should be taken in handling stock from other nurseries for filling orders that cannot be supplied from home nurseries.

"It must be understood that my certificate of inspection does not cover all the nursery stock handled by nurserymen and dealers in this state. Some nurserymen, who grow large quantities of small plants, such as strawberries, advertise fruit trees, although none are grown by them. In such cases the stock should be covered by certificate, as provided by the law,

before being accepted by the dealer; otherwise he lays himself liable to heavy fine if such stock is shipped in violation of this act."

CONDITION OF THE NURSERIES.

"The nurseries of this state are, on the whole, in prime condition. In the various nurseries visited, representing nearly every section of the state, about 2,900,000 trees and vines have been inspected and the necessary certificates furnished the owners. The San Jose scale has been located in three nurseries, and in every case, so far as my final inspection shows has been completely destroyed. In two instances, about three thousand trees, including several old peach, pear and plum-trees in the immediate vicinity, infested by the same pest, were dug up and burned. Fortunately for the owners, the infested material was confined to blocks several miles from the stock to be placed on the market this fall and next spring. So far as a careful examination revealed, I could not find any traces of the scale on the other trees. In the third instance the scale was found on several trees in a one-year-old pear orchard, planted within a few rods of a large block of nursery stock, principally plum. All the infested trees were dug up and burned, and the others will be treated with the whale-oil soap wash this fall. All the nursery trees in the immediate block will be treated with hydrocyanic gas as soon as they are dug, thus insuring the destruction of any insect that might have escaped unnoticed.

"There need be no fear of getting the scale from nurseries in this state this fall or next spring, as every possible means for its extermination has been resorted to by the owners, and a very careful examination of the stock on my part convinces me that the work has been successful. If nurserymen all over the country would take such an active part in the warfare against insect pests and plant diseases as have the nurserymen of this state the present season, I think it would be a comparatively short time before we could successfully control these pests so far as their distribution on nursery stock is concerned.

"The present wide-spread distribution of the scale over the state makes it practically impossible to say that a locality free this season, will be free from the pest next year. Nurserymen, therefore, must be alert and on the constant lookout for this prince of orchard pests, and take immediate steps for its suppression should it appear. In one instance, I found the scale this fall literally covering a lot of peach, pear and plum-trees less than a mile from a large nursery, where it has not been found. Every possible means are being tried to rid this region of the insect before it makes further progress in its distribution. The nurseryman himself has volunteered to uproot and burn all the infested trees in his neighborhood, prune and treat all suspicious ones with whale-oil soap, besides agreeing to replace all the uprooted trees with perfectly clean ones from his nurseries.

NO YELLOWS ON STOCK.

"I have not found a single case of yellows on marketable stock within a nursery this season. In one place I discovered this disease in a peach orchard two years from the bud. The trees had been left in the block from which the stock was sold last season, and out of twenty-five trees, fully one-half had the yellows. I was told that the disease was very conspicuous early this season, and many of the badly infested trees had been cut down and burned. Fortunately, the owner had no

peach-trees on his place for sale this season. All the infested trees were dug out and burned. At another place I found about fifty old peach-trees nearly dead with the yellows in the vicinity of a block of 30,000 peach seedlings that will be ready for market next fall. In this case also the infested trees were destroyed.

"In several instances I have found blocks of pear and cherry-trees that had been almost completely defoliated by the pear-slug (*Eriocampa cerasi*.) Nurserymen finding this insect appearing in their nurseries another season should bear in mind that the infested stock could be cleaned in a few hours by a thorough drenching with a decoction of white hellebore used at the ratio of one ounce in a gallon of water, or the plants may be dusted with the powder, undiluted or mixed with several times its own bulk of cheap flour. These insects are so easily killed it is gross negligence on the part of any nurseryman to allow his stock to become stunted and dwarfed by them.

"The peach-borer (*Sannina exitiosa*) has also been found quite abundant throughout the state. It is not considered a dangerous insect in nurseries, but is very annoying and destructive in orchards. Whenever it is found in nursery stock it should be cut out and destroyed. Its presence can usually be detected by the gummy exudation at the base of the tree.

"I have found the woolly apple-louse (*Schizoneura lanigera*), common in several nurseries. Wherever this insect occurs upon the roots, the trees should be destroyed if badly infested. It is not an uncommon thing to find the roots of infested trees one mass of knots. Such trees are not marketable and should be avoided. As it is not possible for an entomologist to be absolutely sure that the peach-borer and the woolly apple-louse are not present on nursery stock, unless he could see the entire lot of trees uprooted, it will be to the advantage of the buyer of peach and apple stock to pay particular attention to the borer in the peach and the louse on the apple.

NEW DISEASE OF THE PEACH.

During the prosecution of my work inspecting nurseries, I have on three occasions come across blocks of peach seedlings that were in an unhealthy condition. The condition of the stock was not due to what is popularly known as yellows or rosette, or to any other disease that has been heretofore described so far as I can ascertain. Trees affected with this disease have a characteristic reddish tinge, due to the coloration of the underside of the leaves. The leaves have a tendency to roll upwards and inwards, thus exposing the under-surface. The reddish tinge appears first on the outer edge, gradually spreading over the entire under surface on badly infested stock, giving the trees a decidedly reddish appearance. I have not found it affecting any stock except peach.

Respecting the nature of this disease, I have been unable to associate any fungous or bacterial affection with it that could be identified as the cause. It seems very probable that the disease is due to certain soil conditions, and that the stunted growth is partly referable to an imperfect assimilation of plant food. In two instances the diseased stock is on rather low ground somewhat given to frenching, a term familiar to agriculturists. In other places stock in the same unhealthy condition is on high ground, appearing here and there in irregular patches. It is not an uncommon thing to find a perfectly healthy tree growing in the midst of an infested block. In one block of trees budded last season fully 2500 were found in

such feeble condition this fall they have been dug out and burned. The buds were from perfectly healthy stock, but budded on very unhealthy seedlings; the budded growth showing the same characteristic appearance as the seedlings themselves. On the other hand, buds from the same source budded on healthy seedlings made a fine, vigorous, untainted growth.

Whether this disease is communicable by budding unhealthy buds on healthy seedlings remains to be cleared up by actual trial. Experiments are now under way to settle this, and several other points regarding budding, vitality, and longevity of the diseased trees. Another experiment has been started to see whether or not seedlings in this diseased condition cannot be helped by treating the soil with lime to neutralize the acid, and stable manure or some commercial fertilizer to supply nitrogenous material.

Nurserymen who are selecting ground for planting peach should avoid all soils of an acid or sour nature. These soils can be located, usually, with considerable accuracy, if corn is planted in the field before it is used for nursery purposes. Spots where the corn is dwarfed and yellowish, or given to what is commonly called frenching, should be avoided unless previously treated with lime, stable manure, or some commercial fertilizer and thoroughly drained.

POMONA WHOLESALE NURSERIES.

Among the newer nursery firms rapidly coming to the front none is making more rapid strides than the Pomona Nurseries of Macclenny, Fla. The Griffing Brothers, the founders and proprietors of this nursery, left Norwich, N. Y., in 1885, and went to seek fame and fortune in Florida. They were yet "in their teens" and were without means financially, but were possessed of an abundance of energy, shrewdness and ambition. In 1888 with little else but pluck and determination to back them they started the Pomona Nurseries on ten acres of land. At first they made a specialty of plums and peaches exclusively for the wholesale trade. At this writing they have nearly 1,000 acres of land and are growing one of the largest stocks of fruit trees in the South. Their business has rapidly extended to all parts of the country.

Last September the Griffing Brothers Co., was incorporated with a paid up capital of \$25,000. This has been done without one dollar of outside help. The business that at first was almost exclusively wholesale has naturally developed into a good retail trade as well, and they have now in press a retail catalogue illustrated principally with original photographic plates. They have every facility for doing a general nursery business, both wholesale and retail. This year they grew by far the largest stock of fruit trees in the Lower South. Their stock of peaches, plums and pears is exceptionally large and fine.

The illustrations presented in the frontispiece of this issue of THE NATIONAL NURSERYMAN are from photographs of mid-summer cultivation of their peach nursery and a block of their plum nursery taken later in the fall.

Their stock for the southern states is complete, but they have not been content to confine themselves to the South alone and have extended their business to almost every state in the union.

Some have thought that southern grown trees would not do

well in the North but the Griffing Brothers have done much to convince planters that well-matured Florida-grown trees will remain dormant longer in the spring than those grown in the North and are less liable to damage by late frosts.

Florida seems to be the natural home of the nursery and the Griffing Brothers believe they can produce better trees for less money than in any other section of the country and their phenomenal success makes their belief seem quite plausible. They have already booked orders enough to take nearly all their immense stock of pears and heavier grade peaches. They have plenty of plums of all grades and lighter grade peaches yet unsold as well as considerable other stock, but say they fully expect to sell everything they have to offer before the season is over. They keep up with the introduction of new varieties and while they are not carried away with all so-called improved varieties they propagate largely of every new fruit as soon as it has been on trial long enough to be known to be of real merit. As a result of this foresight they have a large stock of such varieties of peaches as Crosby, Champion, Lorentz, Triumph, Sneed and Greensboro, and such plums as Wickson, Willard and all the leading Japanese varieties.

Pluck and determination have won deserved success for the Pomona Nurseries of Macclenny, Fla.

WHAT CONSTITUTES A GOOD APPLE.

Professor H. E. Van Deman is an authority on this as upon any horticultural or pomological subject. He says: "For an apple to be really good in my estimation, it must be rich, aromatic, spicy, free from astringency, juicy, and fine grained, that is, not coarse in texture. Such an apple is heavy in weight, and will make good cider." Professor Van Deman cites as examples, Grimes Golden, Esopus, Swaar, Winesap, Fall Pippin, Gravenstein, Jefferis and Mother. There are others which he thinks of high quality, but they are of lighter weight and more delicate flesh, such as Pirmate, Jonathan and Yellow Bellflower.

"Many would call Red Astrachan, Fameuse and Smith of very good quality" he says, "and so they are for cooking when sugar is added; but they are what I call thin, although the natural flavor is very pleasant. Some apples have an astringent taste—a sort of final tang that makes one want a drink of water to get rid of it, like Baldwin and Pennock. An apple to be at its best, should be ripe, and if, when it gets so, it is often full of brown specks, or dry and mealy, I want to look for something better."

WHEAT FIELDS BECOME ORCHARDS.

The Burrell estate which has large holdings in Whitman county, Washington, will convert some of its large wheat farms into orchards. There were planted this fall 3,000 apple trees under the direction of F. M. Crofoot. Next year from 5,000 to 10,000 trees will be added. More will be planted in 1898 and 1899. The orchards will be near Garfield, Washington.

The output of grapes from the Chautauqua belt and the net price received by growers at the car has been approximately as follows: 1892—2,300 cars, 16½c per basket; 1893—2,900 cars, 12c per basket; 1894—3,600 cars, 11½c per basket; 1895—3,200 cars, 12½c per basket.

CALIFORNIA LAWS.

SEC. 2. It shall be the duty of the inspector of fruit pests or quarantine guardian to inspect fruit packages and all trees and plants, cuttings, grafts, and scions known or believed to be infested by any insect or insects, or the germs thereof, or their eggs, larvæ, or pupæ, injurious to fruit or fruit trees, or infected with any disease liable to spread contagion, imported or brought into this state from any foreign country, or from any of the United States or Territories, and if, upon inspection, such fruit or fruit packages are found to be infected or infested it shall be a misdemeanor to offer the same for sale, gift, distribution, or transportation, unless they shall be first disinfected.

SEC. 3. Every person shipping fruit trees, scions, cuttings, or plants from any orchard, nursery, or other place where they were grown or produced shall place upon or securely attach to each box, package, or parcel containing such fruit trees, scions, cuttings, or plants a distinct mark or label showing the name of the owner or shipper and the locality where produced. And any person who shall cause to be shipped, transported, or removed from any locality declared by the state board of horticulture to be infested with fruit-tree or orchard pests, or infected with contagious diseases injurious to trees, plants, or fruits, unless the same shall have been previously disinfected, shall be guilty of a misdemeanor. Disinfection shall be to the satisfaction of the state board of horticulture, or the inspector of fruit pests. When disinfected, the fact shall be stamped upon each box, package, or separate parcel of fruit trees, scions, cuttings, or plants; and any person who shall cause to be shipped, transported, or removed any such box, parcel, or package from a quarantine district or locality not bearing such stamp shall be guilty of a misdemeanor, and may be punished by fine, as provided in section six of this act. Any person who shall falsely cause such stamp to be used, or shall imitate or counterfeit any stamp or device used for such purpose shall be guilty of a misdemeanor.

SEC. 4. It shall be the special duty of each member of the state board of horticulture to see that the provisions of this act are carried out within his respective horticultural district, and all offenders duly punished.

SEC. 5. All fruit trees infested by any insect or insects, their germs, larvæ or pupæ, or infected by disease known to be injurious to fruit or fruit trees, and liable to spread contagion, must be cleaned or disinfected before the first day of April, eighteen hundred and eighty-five, and on or before the first day of April of each succeeding year thereafter. All owners or occupants of lands on which fruit trees are grown failing to comply with the provisions of this section shall be guilty of a misdemeanor and fined as provided for in section six of this act. All fruit, packages, trees, plants, cuttings, grafts, and scions that shall not be disinfected within twenty-four hours after notice by the inspector of fruit pests, or a duly appointed quarantine guardian, or any member of the board of horticulture, shall be liable to be proceeded against as a public nuisance.

SEC. 6. Any person or corporation violating any of the provisions of this act shall be guilty of a misdemeanor, and shall, on conviction thereof, be punishable by a fine of not less than twenty-five dollars nor more than one hundred dollars for every offense.

ROBERT CRAIG BERCKMANS.

The subject of this article is the second son of Prosper J. Berckmans and was born at Augusta, Ga., in 1863. After a three years course at the celebrated Richmond Academy, he remained two years at the Bingham Military Institute in N. C., and another two years at the University of Georgia, where he followed a course of civil engineering, chemistry and agriculture. Upon the termination of these studies he traveled extensively in Europe, visiting the leading horticultural establishments of France, Belgium, Germany, England and Scotland, and upon his return to America became a member of the firm of the "Fruitland Nurseries" which his father established in 1857. His two other brothers, Louis A. and Prosper, J. A. Jr., being also associated with his father.

Under their management the business has steadily increased in both area and diversity of products. Four hundred acres are closely planted in fruit and ornamental trees. There are now 30 acres in roses to which the soil and climate is especially adapted; Marechal Niel, all budded upon Manetti, being a leading sort. The greenhouse department covers 50,000 square feet of glass, more than half of which is devoted to palms. Camellias and azaleas are grown very extensively, as are also camphor and other economic plants for sub-tropical countries. In addition to their extensive home trade they also transact a large export trade to South America, South Africa, Mexico and West Indies.

The subject of this sketch annually attends the sessions of the American Association of Nurserymen, and for the past two years has been a member of its executive committee.

VEGETABLE PEAR.

The chocho, or vegetable pear, is a well-known plant in the West Indies, but it has only of late years become at all popular in the East, where efforts have been made to naturalize it and distribute it, says the *Gardener's Magazine*. This cucurbit—*Sechium edule*—is not unknown in Covent Garden, as the fruits are frequently sent there by some growers who cater for those desiring novelties. In Mysore the natives have taken up the cultivation of the chocho with considerable spirit as shown in the recent report on the government gardens and parks of that presidency. The report states that one practical outcome of the Nundydroog nursery is that the cultivation of chocho has been taken up in several villages at the foot of hill. The laborers who are occasionally employed from these villages will, in all probability, utilize other garden products in the same practical manner. Chocho is now quite established as a popular vegetable in Bangalore and the adjacent villages. The fruit has also been widely distributed to other towns in

the province. It is largely used in the central jail, where the fruit is carefully grown, and considered to be one of the most wholesome foods for prisoners. It is not generally known, however, that the large fleshy root of the plant, sometimes weighing nearly twenty pounds, can be cooked and eaten like a yam.

A JADOO CONSERVATORY.

The conservatory at Eastcliff, Teignmouth, Devon county, England, differs from all others that have hitherto come under our notice says the *Gardener's Chronicle*, in that all the pot-plants used in it are grown, not in soil or earth of any kind, but in Jadoo fibre, which, as many of our readers know, is peat-moss boiled in certain chemicals. The plants grown in the hanging baskets are in the same material, which, being only half the weight of ordinary mould, permits of baskets being used in conservatories, the rafters of which would not be strong enough to bear the weight of baskets filled in the usual way. There is nothing particularly novel or uncommon about the plants used, if we except a basket filled with *Asparagus Sprengeri*, which has an exceedingly light, graceful character. Jadoo fibre is reputed to improve the color of flowers grown in it; this was very noticeable in the display of blooms in this conservatory, where the purity and brightness of the colors were very unusual.

Dr. Maxwell T. Masters says: "Fairchild, a nurseryman at Hoxton, was the first on record to raise a hybrid pink; indeed, this is the first artificial hybrid of any kind on record, and it dates from 1719."

State horticultural societies will hold annual meetings as follows: Indiana, at Indianapolis, Dec. 1; Minnesota, at Minneapolis, Dec. 1; Missouri, at Marceline, Dec. 8; Kansas, at Topeka, Dec. 9; Michigan, at Grand Rapids, Dec. 1; Ohio, at Athens, Dec. 2; New Jersey, at Mt. Holly, Dec. 6; Illinois, at Springfield, Dec. 29; Delaware, at Milford, Jan. 6; Pennsylvania, at Allentown, Jan. 29; Wisconsin, at Madison, Feb. 9.

Observations by a naturalist show that the growth of plants during certain periods of the day and night is as follows: From 6 A.M. to 9 A.M., $8\frac{2}{3}$ per cent. of growth; from 9 A.M. to midday, $1\frac{1}{3}$ per cent.; midday to 3 P.M., no growth; 3 P.M. to 6 P.M. no growth; 6 P.M. to 9 P.M. $1\frac{1}{3}$ per cent.; 9 P.M. to midnight, $3\frac{2}{3}$ per cent.; midnight to 6 A.M., 83 per cent. From these figures it is concluded that more than 90 per cent. of growth is made during the night. Numerous plants were used for these experiments, and the amount of growth varied according to the different kinds.

An eastern fruit dealer estimates the apple crop of the United States this year at 70,000,000 barrels.



ROBERT CRAIG BERCKMANS.

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C. L. YATES, Proprietor.

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IMPROVED CONDITIONS.

While all over the country come reports of improved business conditions, it is encouraging to note that the return of confidence since election, has extended to the nursery business promptly.

President Silas Wilson of the American Association writes from his home at Atlantic, Ia., under date of November 18th.

"Since the election of Major McKinley the improvement in business has been so marked that everybody can see it. I believe this will not only apply to business generally but will especially apply to the nursery business. We have had more orders for immediate shipment and for spring delivery since the election than we have had in double the time before. I confidently believe there will be a great improvement in the nursery business the coming winter and spring and that all the nursery stock now grown can be disposed of at fairly good prices."

A NOTED BOTANIST.

For nearly half a century Baron Sir Ferdinand Von Mueller, K. C. M. G., F. R. S., who died October 9th, was intimately associated with the progress of science and exploration in Australia and especially with the development of its vegetable resources. From 1848 to 1853 he traveled over four thousand miles mainly for botanical purposes. In 1852 he was appointed government botanist to the colony of Victoria. In 1855-56 he accompanied, as botanist, the expedition under the command of A. C. Gregory for the exploration of North and Central Australia, and was one of the four to reach Termination Lake in Central Australia. Some six thousand miles of previously unknown land was traversed, and abundant collections made

of the various forms of vegetation. On Mueller's return to Melbourne he was appointed director of the Botanical Garden of that city. In this office he rendered immense services, not only to Australia, but to many other countries. Into the former he was the means of introducing many useful plants from other regions, in exchange sending abroad plants native to Australia of more or less economic value. He had a leading hand in introducing that most useful of Australian trees, the eucalyptus, into Algeria and elsewhere. He was the first to raise the great Victoria Regia water lily. Indeed, his immense knowledge as a botanist had almost always a practical end in view, and not a few Australian industries are largely indebted to him for their development. It was also partly due to his suggestion that the camel was introduced into Australia and first used for exploring purposes in 1860. His own travels in Australia for botanical purposes, on foot and on horseback, covered some 25,000 miles.

ENGLISH ORCHARDS.

According to the returns issued by the board of agriculture, orchards in Great Britain continue steadily to increase. In June last, when the returns were collected, there were in England 215,642 acres under orchards, against 212,963 acres in 1895. In Great Britain there are 221,253 acres, as compared with 218,248 acres last year. Kent, Worcester, Gloucester, all show considerable increases, especially the former, but there are a great many advances in the eastern, northeastern, northwestern, and Welsh counties also. The counties having largest acres under orchard fruits are Devon, 26,924 acres; Hereford, 26,347 acres; Somerset, 24,389 acres; Kent, 24,093 acres; Worcester, 20,165 acres; Gloucester, 18,724 acres; Cornwall, 5,096 acres; Middlesex, Dorset and Salop rather over 4,500 acres each.

RAISING STANDARDS.

The attention of nurserymen cannot too often be called to the importance of aiming high in every detail of the business. An encouraging sign of the disposition to attain to the best is noted in numerous recent developments. Catalogues have been greatly improved during the last few years. There is a growing interest in literature devoted to the trade and a corresponding increase in the amount of such literature. As the result of competition and improved methods of growing stock, there is on the market a higher grade in all lines. Experience with novelties which have not been fully tested before presenting to the public has made growers and dealers cautious, and almost invariably now nurserymen are zealously guarding their reputation against any charge of advocating a doubtful variety.

All this is appreciated by the fruit grower, and notwithstanding the low prices and hard times, there is a disposition to grow fruit which is increasing annually and when better times come, as in the nature of things they must, the high standard to which nurserymen are working will prepare them to meet the increased demand of a large and intelligent class of orchardists.

Professor Van Deman gave good advice at the Chicago convention in his remarks upon the duty of the nurseryman to the fruit grower. He emphasized the far-reaching effects of

the business, the importance of a knowledge of botany, pomology, entomology, mycology and correct nomenclature. The endorsement of these principles by leading successful nurserymen will surely lead to their adoption generally.

CAUSE OF MARYLAND LAW.

BERLIN, MD., Nov. 25.—We notice some nurserymen making objections to the Maryland nursery law. They seem to think the nurseryman of this state are the ones who started the restriction. I can say candidly I do not think there was a nurseryman in the state who had anything to do with it, and the party who, as I understand, drew up the bill, had just cause to do so. He had from ten to twenty thousand pear trees in the finest condition. He needed a few to replant, or some new variety, as it may be, and purchased about one dozen trees which he trenched near his orchard. Before they were planted this wonderful scale was found on the trees.

Where did it come from? Well, ask at Washington, D. C. Who is the loser now, the man that has sixteen thousand pear trees, to spray four times each season or more, or the one that grew the dozen trees?

We think the law when fully understood is the best thing that was ever adopted for the nursery trade and growers of fruit and it will soon be that the other states will have to go down the line just as close as we do now. One principle of this will be the selection of soil for nursery; then carefully selected seed and then the stock, followed until it is dug for shipment.

Professor W. G. Johnson our state entomologist has been with us several times and reports he has not found the scale or peach yellows in our county, Worcester, nor is it south of the Delaware line. We are glad to have our stock thoroughly examined as Professor Johnson does. He is a thorough worker when in the nursery. Any nurseryman can ship into this state in welcome but his stock has to stand the same examination as ours. If it is all correct, all right; if not, he will have to keep it out of Maryland. Our strawberry plants, peach trees, plum and apple trees have all been thoroughly examined, and we hold a certificate. A copy of this goes with each shipment.

J. G. HARRISON & SONS.

FACTS ABOUT THE APPLE CROP.

The American Fruit Growers' Union has issued a bulletin on the prospective supplies and prices of apples. The bulletin says:

By a recent report we find that the supposed claim of the apple buyer that our crop is the greatest ever known, has proven wrong. We are free to confess that in Michigan, New York State and parts of New England, they have an immense crop, but we also find that in the central and western states, which had an immense crop last year, the crop is small, and in some prominent producing localities, not sufficient for home consumption. The abundant crop of the East and Michigan must be called upon to supply the markets which have been taken care of by these western and central states, besides taking care of their own section. Furthermore, the export demand alone will take away a large share of the surplus. Just think of it; so far this year America has exported six times as much as up to this time last year, and three times as much as

during the entire season last year. Furthermore, this demand is increasing, for since the first shock, owing to the immense arrivals in Liverpool and London, and the subsequent slump in prices, these markets, under still heavier shipments, are reported to the American Fruit Growers' Union as advancing rapidly. On the continent the demand is just commencing, and as we can deliver them there at present prices at which growers are holding, for 25 per cent. less than their fruit is bringing, any one can see that they will rapidly take hold of our apples.

The report mentioned above states that the entire crop of 1896 is in round numbers 59,000,000 barrels as against 60,500,000 in 1895 and 57,000,000 in 1894; that the greater part of this crop is in New York, New England and Michigan. It also says that the report from the Central West shows that the crop in many instances is sufficient to supply home requirements, reports the exports to be in excess of 1,000,000 barrels to date, and that the United States consul reports that the foreign markets have a capacity for absorbing further vast quantities before spring, all of which only confirms the information that has been supplied the American Fruit Growers' Union by its agents, and has been given to the growers from time to time in the bulletins issued by that association.

The crop report of the Department of Agriculture says: The November returns give comparative yields of apples, pears, and grapes, and in the main reflect the returns as to condition made in the preceding months. In the case of apples the standard of comparison has been exceeded in no less than eight of the northern tier of states, which comprises the most important winter-apple section of the country. Other states in this region also report excellent yields. In other sections, as the figures show, the crop is at best only mediocre. The returns for pears are nowhere as high as for apples, but are generally better in those sections where apples gave the best returns. The grape is one of the most constant of the fruits, and, as usual, the returns show a product more uniform the country over than for either apples or pears. As compared with last year the present season has given generally larger products.

ORANGES AND PINES IN FLORIDA.

WINTER HAVEN, FLA., Nov. 10.—We are slowly recovering from the great loss of our orange groves and nursery stock by the great cold of 1893 and 1894. Any one that has not been here to see, cannot realize what a great loss it was in our state.

Some little planting of new groves was done last winter, and there was much call for bud wood to rebud the frozen down trees as they sprouted up again from the roots, and often up along the partially killed trunk of the tree. When this new budding is properly done and proper care is given the tree afterward, it is surprising how quickly the tree has recovered. In two years it will be making oranges again.

Sales are slow in starting this fall, but we are hoping for a fairly good trade this winter.

The pine apple is rapidly coming to the front as our best paying industry in sections of not too much cold. The demand has been up to the supply of the finer varieties of plants at good prices, and without question the average of planting will keep on increasing rapidly.

JAMES MOTT.

In Nursery Rows.

Large numbers of white birches are dying this season. Can you tell us what is the cause. B. B. Co.

We would be glad to publish the opinion of anyone who has an explanation. Professor Bailey, of Cornell University, says he has received several complaints, but has not yet investigated the matter.

"Can you give me any instruction on winter budding. Is this method successful and profitable?" S. H. L.

Winter budding is practiced in the South and according to a recent article is becoming popular in some sections. Upon this subject Secretary A. H. Manville of the Glen St. Mary Nursery Co., Glen St. Mary, Fla., says: "Winter budding is successful. While we do not consider it a feasible method on an extensive scale, we use this method frequently, particularly when we want to multiply a new variety rapidly. The method is simple. The bud is cut in the ordinary way and a corresponding section removed from the stock, an incision being made in the stock at the bottom of the cut to receive the lower end of the bud which is held securely in place by ligatures. The bud should be inserted low in the stock and covered with earth as soon as the operation is performed. We usually bud stocks in this way as they stand in the open ground, and throw up the earth with a plow. This earthing up we consider the essential point in the operation."

Much has been said for and something against Japanese plums. What is the consensus of conservative opinion in the light of recent tests? M. D. L.

The introduction of the Japanese plums in America is one of the notable pomological events of the present century, says Professor H. E. Van Deman. It has opened a new field, because the varieties imported direct from Japan, good as they are, are only the stock from which to propagate numerous seedlings and crosses with other species of the plum family, and some of these are already beginning to appear. The large size and handsome colors of the Japanese plums make them very attractive, and the good quality of the most of them pleases the taste. The firmness of the flesh enables the fruit to be carried almost without injury over long distances. The trees are mostly of good shape and sturdy habit, and bear almost too well. In fact, they must be carefully watched and the fruit thinned, or the trees will be greatly overloaded and injured. The varieties range in color from almost white to dark purple, and some are as red to the stone as any cherry. The season of ripening extends from very early to very late. All varieties, except Kelsey, seem to be hardy as far north as Massachusetts, Michigan and Iowa, yet they do well along the Gulf of Mexico. They are practically proof against the ravages of the black knot and leaf-blight. On the other hand, the trees bloom so early in the season that in some sections they are apt to have the crop cut off by frost, although there are cases where they have bloomed and set fruit, and were practically out of danger before the later kinds reached their tender age, and were seriously hurt by late frosts. The fruit is subject to rot in some sections, and under certain climatic conditions. There is a peculiar flavor running through nearly the whole list of varieties, that in a few of them, and to some persons, is almost bitter. But considering all things, the nurseryman, the fruit grower, the merchant and the consumer, like the

Japanese plums already, with but few exceptions. The canners are pleased with them, also, and there is likely to be a great future to this part of the business. I never ate any preserved fruit so deliciously flavored as Satsuma plums.

How long have the orchid-flowering cannas been grown and do they promise to become popular? T. G. McK.

Upon this subject a writer in *The Gardener's Magazine*, London, recently said: One of the most remarkable instances of what can be done by selection, crossing and hybridizing to improve a class of plants is shown by the present race of cannas. It is not long since cannas were only utilized for producing sub-tropical effects in the flower garden, or for the decoration of large conservatories where masses of foliage were needed. Now, however, all this has changed; first, we had the tall and stately growths and bold foliage, surmounted by pretty flowers, but very soon it became evident to those who were at work on the genus that a dwarfer habit was necessary ere the plants would become popular. The result of much pains and patience was the fine varieties known comprehensively as the Crozy cannas, of which Madame Crozy was for a long time the best and most brilliant. Many growers soon saw that such cannas must become popular, and so numerous nurserymen took up the work of crossing and selection, following much the same lines that M. Crozy of Lyons, had worked upon. Several English firms raised a number of seedlings, and some of these are among the best now being grown. In addition to the Crozy varieties, which multiplied quickly, and the few English forms, there came some from the United States also of good form and substance, dwarf and handsome; probably Star of '91 was the first thoroughly good American canna introduced to Europe.

While we all admired these charming and useful plants, and thanked their raisers and introducers for such valuable additions to our list of subjects suitable for conservatory decoration, for summer bedding, for grouping and for cut flowers, we came to the conclusion that progress could be made no farther. It became generally understood that the largest flowers, the most brilliant colors and the most suitable habit had been obtained, and that we had ended the possibilities of cannas though not their usefulness. In this matter, however, most horticulturists were mistaken, as the newer orchid-flowering cannas have proved. The honor of raising this new set is due to M. Sprenger, a partner in the firm of Messrs. Dammann and Co. of San Giovannià Teduccio, near Naples, Italy. This gentleman saw that beyond a slight variation in coloration it was hopeless to expect anything new by intercrossing the best of the existing cannas, consequently he was led to study the species of cannas, and in *C. flaccida* he found a plant that he hoped would provide a new break. *C. flaccida* is a native of the southern United States, and grows about three and one half feet high, and has large flowers with one segment somewhat abnormally developed. M. Sprenger obtained some of the finest forms of this species, and then began to experiment.

A number of other fine varieties have been raised, but these are not yet in commerce. The tendency should now be to reduce the height of this new section, though in some varieties there is little to be done in this direction. Up to the present but few of Messrs. Dammann and Co.'s cannas have been seen in England, but those that have been exhibited, especially *C. Italia* and *C. Austria*, have gained honors and been greatly admired.

Foreign Notes.

James Herbert Veitch, F. L. S., F. R. H. S., of the well-known firm, James Veitch & Sons, Royal Exotic Nursery, Chelsea, England, during the years 1891-'93, made an extended tour through India, the Straits Settlements, Japan, Corea, the Australian colonies and New Zealand, for the purpose of examining the flora. He embodied his interesting observations in a volume entitled "A Traveler's Notes."

Garcia, Jacobs & Co., of Covent Garden, who recently sold 3,600 barrels of apples, say: "The apple crop this year in the United States and Canada is unprecedentedly large, and the shipments to England are estimated at the lowest at about 1,000,000 barrels, without considering Nova Scotia, whence there are now being shipped to London 20,000 to 30,000 barrels per week. We are of opinion that, owing to the climatic conditions, English growers up to the present have not been able to produce a sufficient quantity of apples for winter consumption."

The extent of the gardens at Kew is somewhat over two hundred and fifty acres. The great features of interest to visitors are the Palm and Temperate Houses, Orchid Houses, Conservatory, Lily House, Rock Garden, Lake, Bamboo Garden, and Herbaceous Ground. There are eighteen glass houses open to the public, but though the number is small, some of the houses, like the Palm House, Temperate House, No. 4, No. 1, and the Succulent House, are of great size, the two former being huge covered gardens. The glass houses at Kew altogether cover over two and a half acres, or about 1,113,530 square feet; the pathways under glass are nearly two miles. There are nearly fifteen miles of paths and roadways in the gardens.

The practice adopted by the French National Horticultural Society of holding a congress in conjunction with their principal exhibition, held at Paris in May, and arranging the programme nearly a year in advance, has much to recommend it. The programme of the congress in 1897 has been issued, and the subjects for discussion include the selection of species and varieties of fruits; the culture of flowers by children and workmen; the influence of selection by cuttings and grafts; the results obtained by the hybridisation of orchids, and the degeneracy of certain species; comparative value of different stocks for roses; the classification of roses from a botanical point of view, and the classification of the varieties of roses according to their section.

STOCKS FOR FRUIT TREES.

This subject is, obviously, of paramount importance. As with a horse, without good feet a tree is worthless. The two main ideas which must be indelibly fixed upon the mind are: First, that all roots are not equally suited to all conditions of soil and atmosphere, and second, that varieties closely allied do not necessarily succeed equally on the same stocks in the same location. The general rule is to graft or bud on to seedlings of the same kind, but experience has taught us that there must be some variations to this practice. Standard apple trees are worked upon seedlings raised from the seed of any apple, or from crab apples. These are the only distinctions as far as the seedlings are concerned, and opinion is divided as

to which is best. Apple seedlings show very little difference in the seed bed, and are graded and sold according to size. In the nursery row, however, various differences will be noted the second year, and it should be the duty of the nurseryman to weed out all seedlings which show a weak, stunted, crooked or very thorny growth, and only those which show a clean, vigorous and straight growth should be budded or grafted. This, and many other details of the nursery business, cannot be properly attended to at last year's prices. It remains for the public to say whether it wants trees properly grown on selected stocks, and will pay a fair price for the same. Dwarf apple trees are grown upon what are called Paradise and Doucin stocks. These varieties are of bushy growth, raised from cuttings, and which impart to the tree grafted on them the same bushy, dwarfish characteristics. These trees come into bearing very early, and produce very large, fine fruit. They should always be selected for garden or small orchard culture, or, as shown in a previous issue, may be planted commercially eight or ten feet apart. They should be planted rather deeper than standards.

CIRCUMVENTING THE APHIS.

In Australia, to circumvent the depredations of the "woolly aphis," the trees are usually "double worked" by grafting Northern Spy or Winter Majetin and then grafting the desired variety on to them. There is something in the sap or fibre of these varieties objectionable to the louse, and trees so worked are said to keep free from it. It should be done here, for these root lice, working also on the branches, are becoming a very serious pest. Apples will grow on the pear, but it is not recommended, except in the case of large orchard trees, where it may be desired to change one into the other. The pear is also mostly grown on its own seedlings, which to a large extent, come from France. The same remarks apply to the selecting of seedlings in the nursery row, but more care still is needed in their cultivation. Apple and pear seedlings should be immersed in a solution of whale oil soap, about one pound to five gallons water, for two minutes, and the solution at a temperature of 100 to 120 degrees. This will kill any aphis which may be on them, and it is not safe to trust to any guarantee or close inspection, as the insects spread rapidly as soon as they get a start, and the eggs might not be discernible. Pear seedlings are also liable to be affected in the nursery row with pear slug, or with a kind of scab or rust. Bordeaux mixture will prevent the latter, and whale oil soap solution, or kerosene emulsion, the former. Care must be taken not to use the washes too strong while the seedlings are growing.

Japanese pear seedlings are being used, and, should they prove to be objectionable to the aphis, will be a God-send. They make a particularly clean, straight growth, partaking of the nature of all the Oriental pears in having very fine foliage and a vigorous growth. They have been rather difficult to procure in large quantities, and consequently more expensive, but such Japanese varieties as Hawaii, Von Siebold, Mikado, etc., bear so early and so heavily that it would pay to plant them for seed. The quince is used in the same way that the Paradise and Doucin are for the apple, and with similar results, but it is necessary to success that on this stock the trees be planted an inch deeper, and only in moist land. The plum and prune are in California variously worked upon the plum, peach and almond seedling. In the case of the former, there are several distinct species used, notably Myrobalan, Ameri-

cana and *Prunus hortulana*, or Wild Goose. Several other species, with their varieties, are more or less distinct and of no particular value in this connection, as stocks. The Myrobolan is of European origin, but its seedlings are very variable. To this indiscriminate propagating of any seedlings of the various plums called Myrobolan is partly due the peculiar behavior of some plums and prunes on this stock. Some of the Wild Goose family make excellent stocks, but grafts of other plums do not so readily unite with them. The Marianna is claimed by its introducer to be a seedling of Wild Goose, but it shows such marked Myrobolan characteristics that it is now believed to belong to that group, possibly being a hybrid of the Wild Goose. Be that as it may, it makes a very fine stock, taking the bud or graft freely, and adapting itself to very divergent conditions.

ADAPTATION OF STOCKS.

It is not possible yet to speak authoritatively as to what stocks are adapted best to the many different conditions which exist in so large a state as California. Growers must observe closely for themselves. If one stock in a certain locality or soil does not flourish, it is time another were used. Where the land is heavy, or where the variety demands it—as in the case of “D’Agen,” (Robe de Sergent) which does not unite with peach or almond, if Myrobolan does not seem to succeed, try Marianna, and by all means report fully in the agricultural press. The experiment stations in California will help us in this matter as soon as they can, but they are yet in an embryo state and cannot speak from overmuch experience. Several other plums are used for stocks, such as St. Julien and Damask. The former was planted some years ago in this state, but was swept away by the Myrobolan avalanche. The latter is much cheaper and has the virtue of not suckering from the roots so much as the other two, but it is extremely doubtful if trees on Myrobolan will ever attain the size and age of plums on any of the *Domestica* types of European seedlings, such as were used here twenty and more years ago.

Peach trees are universally grown upon their own seedlings in California. The almond stock has been used, but it has no apparent advantage over the peach. The best peach seedlings are grown from “natural” seed, that is, the seed from seedling fruit. It may often be noted that the larger, finer, or more artificial the fruit we eat, the less vitality is found in the seed proper. Apricots do well on their own seedlings in deep, warm land, but on the peach stock the apricot can be successfully raised in a great variety of soils. The same applies to the almond to some extent, though it is best not to plant it for market except where it will do well on its own root. The almond in dry, warm soils makes a very fine stock for the Petite d’Agen prune, and many plums. The bitter hard-shell makes the strongest growth.

If growers and planters will inform themselves more thoroughly on all these points, the nurserymen will only be too willing to meet them half way, and give more care to the selection of stocks. The question of suitable stocks is the first thing for the intending planter to consider, then varieties. Some varieties require to be “doubled worked” to make first class trees, but this means more labor and time, and therefore more money for the tree. In my opinion the Prune d’Agen (Robe de Sergent) is one of these. In my own orchard this variety bears better and has larger fruit “double worked” on the peach root than on the plum direct.—Leonard Coates in the *California Fruit Grower*.

Among Growers and Dealers.

W. S. Long, Shirleysburg, Pa., is not a nurseryman.

A. Burkholder, Butler, O., has moved from that place.

T. W. Jenny, St. Mary's, O., is no longer in the nursery business.

M. H. Smith, Boonesborough, Ia., has gone out of the business.

E. B. Lewis, Brockport, N. Y., visited Rochester and other Western New York nurserymen.

Henry H. Robbins, Whitman, Mass., has sold his business to H. E. Barrows, Brockton, Mass.

W. H. Moon, of the W. H. Moon Co., Morrisville, Pa., visited Western New York nurserymen last month.

L. M. Ford, who conducted a nursery for many years in Minnesota, is conducting a tropical nursery at San Diego, Cal.

A feature of the American Institute fair in New York was the display of nuts made by William Parry, Pomona Nurseries, Parry, N. J.

William Smith, of W. & T. Smith Co., Geneva, N. Y., was among the callers at Thomas Meehan & Sons' Nurseries, Germantown, Pa., during November.

The most extended terms given by any nursery concern on record are those of a Kentucky firm which offered 40,000 apple trees “payable when Bryan is elected.”

John R. White, 60 years old, of Rochester, N. Y., was killed on the evening of November 21st, while crossing the New York Central tracks, at Ames street, in his carriage.

L. C. Bobbink, Rutherford, N. J. is the agent for the Horticultural Co., of Boskoop, Holland. He has always on hand tree roses, clematis, azalias, paeonies, H. P. roses, magnolias, hydrangeas.

Leonard Coates has purchased and taken possession of the entire stock and plant of the Napa Valley Nurseries, formerly owned by the Napa Valley Nursery Co. Mr. Coates owned this property once before.

C. H. Joosten, of New York city, in another column calls attention to the fact that chances favor higher duties on nursery stock, and advises buyers to place orders at once. He offers special inducements to large buyers.

Harrisons, of Berlin, Md., offer in another column ten million strawberry plants, 53 varieties, all from new beds on fresh, cleared land; also one hundred thousand each of one year peach trees and June-budded; and a half million asparagus roots.

All who are looking for Myrobolan plum seed or Virginia natural peach seed, will be interested in the announcement of Thomas Meehan & Sons, Germantown, Pa., who have a large supply ready for shipment. They have all kinds of fruit stocks, seeds, raffia, etc.

Ellwanger & Barry, Rochester, exhibited 75 varieties of grapes at the American Institute fair in New York. Stephen Hoyt's Sons, New Canaan, Conn., exhibited a collection of ornamental trees and shrubs. E. & J. C. Williams, Montclair, N. J., had fine specimens of grapes on exhibition.

M. Crawford, Cuyahoga Falls, O., says of H. M. Stringfellow's work, “The New Horticulture”: “It will put new life and hope and courage into thousands whose minds are open to appreciate its teachings. It is the best thing that has

come to the horticulturist since the establishment of our agricultural colleges and experiment stations."

Jackson & Perkins Co., of Newark, N. Y., have arranged with David Miller of Camp Hill, Pa., for propagating and introducing his new black raspberry, the Cumberland, which was described in the August issue of this journal. Messrs. Jackson & Perkins expect to have a large stock of the plants ready for market by one year from the coming spring.

S. H. Linton, Marceline, Mo., writes: "The retail trade with us this season amounted to next to nothing, and the price at which stock was offered throughout this part of the state was generally less than good stock could be handled for. Therefore we were content to let our stock stand in the nursery with better prospects for spring trade. The past season was all that could be asked for to make a good growth."

George L. Taber, the well-known nurseryman, of Glen St. Mary, Fla., and A. H. Manville, also well-known through his work for a quarter of a century, as nurseryman and fruit grower, as well as author, editor and secretary of the Florida State Horticultural Society, have formed the Glen St. Mary Nursery Co., of which Mr. Taber is president and Mr. Manville, secretary. Their post office address is Glen St. Mary; their telegraphic address, Macclenny, Fla.

Recent Publications.

Right up to date in the matter of catalogues is the new firm, the Glen St. Mary Nursery Co., Glen St. Mary, Fla. George L. Taber, president, and A. H. Manville, secretary, have reason to be proud of the catalogue sent out for 1896-7. Brimming over with illustrations and descriptions of the choicest fruits of the entire southern region, it attracts attention and then holds it. The catalogue contains 64 pages and is handsomely printed and bound in tinted enameled paper with half-tone reproductions of the Triumph peach and Japanese mammoth chestnut. It is conveniently arranged in four parts, describing varieties, suggesting methods of culture and management of fruit trees, giving points on ornamentals, the stock offered, prices, terms, conditions, rates of freight, etc. As the proprietors truly remark: "In a region where fruit growing is new and formative, as is the case now in the Lower South, it falls to the nurseryman to lead the way in experiments and to make the record of progress. His annual summary must be guide and handbook as well as catalogue."

The culture of the quince has been quite thoroughly treated in a new illustrated handbook by W. W. Meech. Before the appearance of the first edition of this work, some eight years ago, no separate book on quince culture had ever been published, although various articles relating to the quince were dispersed through many books and periodicals. The author, who has made the cultivation of this fruit an important part of his life work, was imbued with the necessity for a work which should serve as a manual for the novice, as well as a book of reference for those of more experience. In the new and enlarged edition is embodied the latest knowledge on the subject. A number of insect enemies have been investigated, and several species not before suspected have proved injurious to the quince. Especially important are the discoveries of fungi injurious to the quince and their preventives and remedies, which are fully described in this new edition. A condensed description of all the varieties of recent introduction has also been added, as well as a chapter on the chemical analysis of the ash of the quince in health and disease. This brings the work up in every detail to the requirements of the present date. Separate chapters are devoted to the history of the quince, structure of the quince trees, varieties, soils, manures, location, cultivation, laying out of orchards, transplanting, propagation, pruning, promoting fruitfulness, flowers and fruits, thinning, gathering and marketing, profits of quince culture, diseases, winter killing, insects and other enemies, fungi injurious to the quince, recent varieties and chemical analysis. 180 pp., cloth \$1. New York: ORANGE JUDD CO.

SOUTHERN TREES IN THE NORTH.

For some years I have been annually bringing thousands of peach trees from Georgia, not only for my own planting in Connecticut, but also to supply a portion of my nursery trade throughout the northern states, writes J. H. Hale from Connecticut to the *Rural New Yorker*. I have done this to insure establishing an orchard free from the yellows, and so far, while escaping the yellows I have never noted any lack of vigor or healthfulness in the trees in any other particular. My own opinion, based on a good many years of tree planting, is that, so far as well-known tested varieties are concerned, it matters little with their vigor of hardiness where they are originally propagated. A Baldwin apple tree, or an Oldmixon peach propagated in Canada, New York, Virginia, or Georgia, if propagated under like conditions will do just as well in Connecticut as a tree originally propagated here, and as we are pretty sure to start free from the yellows by using southern-grown peach trees, I think that we are safe in advising their planting in preference to any others.

Upon this subject, J. S. Harris, La Crescent, Minn., says in the same publication: My experience with planting peach and other fruit trees, also forest trees is that such trees, nursery-grown in more southern latitudes, are not nearly as safe for planting at any considerable distance further north than where grown, or where the winter's cold is more intense, or where soil and climatic conditions are materially different. They are more frequently severely injured or killed outright in the first or second winter after being planted than the same varieties nursery-grown near by in similar soil and climate. Even though the first winter or two after they are planted be mild and favorable, they seldom become so thrifty and healthy. I have seen trees of Oldenburg apple, which is about the hardiest variety I know, that were brought from Central Illinois and set in Southern Minnesota, that were killed to the snow line the first winter after planting, when home-grown trees of the same age and variety, did not show any injury. The peach, being scarcely hardy in New York, I think, could be safely advanced but a short distance further north at any one time, and trees produced in states further south would be very much more likely to have their health seriously impaired by such a change.

The only correct principle for acclimating trees or plants to a colder region is to produce them from seeds matured in the most northern limits where they succeed, and advance them very slowly through selection of seed from the hardiest and best adapted. It is true that black walnut, catalpa and some fruit trees procured from southern nurseries, if they are not too severely injured in the first and second winter after planting, do appear to get more hardy, and endure the climate better in after years. To procure trees for orchard planting that have been propagated and raised near home is always a safe rule, and if always followed we would have healthier and better orchards at a great saving of cost in money.

T. T. Lyon, South Haven, Mich., says: Although I have received and have had growing upon the experiment station premises here during the last eight or ten years peach trees from Missouri, Georgia, Texas and other southern states, alternating with others received from various eastern, western and northern localities, I have been unable, so far, to discover any differences among them in vigor, health or productiveness in

any way traceable to the change of climate or locality. Some 30 or 40 years ago, while living in Eastern Michigan I received (in scion) a large number of varieties of apples from the extreme South, which were grafted in an orchard containing 200 or 300 of our well-known eastern and northern varieties. I have never known one of these southern varieties to be injured from climatic causes, even under conditions which sadly decimated our Baldwins, Roxburys and other eastern varieties. From both experience and observation, I have acquired the impression, not to say conviction that, through a more perfect ripening or other cause, the protracted warmth of the southern seasons is rather conducive to hardiness. I have such trees planted from Texas, New Jersey, Alabama, Missouri, Connecticut, Ohio, Michigan, New York, Illinois and several different locations in Canada, says W. W. Hilborn, Leamington, Canada. I can see no difference in regard to their hardiness on account of location. There is, often, a great difference in the vitality of the trees procured from different sections; this is owing to the way in which the trees have been grown and the new wood ripened. If the trees have been grown on very rich land, they grow too late in the fall, and do not ripen their wood in good shape. Such trees are not likely to do well, no matter where they are grown.

SEED DISTRIBUTION.

Secretary Morton of the Department of Agriculture in his annual report says: "The seeds distributed gratuitously by the government during the present fiscal year weighed 230,000 tons and occupied thirty mail cars in transit. The cost of carrying them through the mails was over \$70,000. Enough seed was sent out gratuitously to plant 115 square miles of garden. Each congressman received enough to plant 163½ acres. For the current year, at present prices, the amount required by congress to be expended in the purchase of seed will make each congressman's quota double what it was last year. The secretary sincerely regrets this unnecessary and wasteful expenditure of public moneys and hopes congress may in good time put a stop thereto."

WILL HELP PUSH IT ALONG.

CHAS. H. MAXON, TREASURER AND GENERAL MANAGER CENTRAL MICHIGAN NURSERY CO., KALAMAZOO, MICH.—"Let us know when our subscription expires and we will renew promptly. It's a good thing and we will help push it along."

BORE FRUIT EIGHTY-SIX YEARS.

Forty-one bushels of apples were gathered this year from a century-old tree, which is known to have borne fruit for eighty-six years, in the orchard of R. H. Williams of West Corinth, Vt. The circumference of the trunk near the ground is 12 feet 4 inches.

Professor Van Deman suggests that the terms "perfect" and "imperfect" be used in classifying strawberry varieties in catalogues as being more readily understood generally than the terms pistillate, staminate, hermaphrodite and bisexual.

An opportunity is offered upon another page to make a holiday investment which will prove a constant source of pleasure and instruction. It is the offer of the Encyclopedia Publishing Co., 156 Fifth avenue. The Standard American Encyclopedia is declared by experts to be a superb reference book, and it is offered on terms which place it within the reach of all.

The Sparta Nurseries

Are in need of some lines of Nursery Stock, and will sell their dry baled Moss, half in such stock, balance cash payment Dec. 1st. We have a general line of small fruit plants to offer, such as Strawberry, Raspberry, Blackberry and Currants; the leading Blackberry of the west—Ancient Briton. Also the high bush Cranberry, Juneberry and Huckleberry.

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50,000 Cuthbert	5,000 Miller	50,000 Thompson
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10,000 Hansell	5,000 R. Church,	5,000 Ohio Transpl'ts

BLACKBERRIES.

40,000 Early Harvest, R. C.	25,000 Stone's Hardy, R. C.
10,000 Erie, R. C.	25,000 Snyder, R. C.
10,000 Eldorado	20,000 Wilson Early
5,000 Lovett's Best	20,000 Wilson Jr.
5,000 Minnewaski	40,000 Lucretia Dewberry
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CURRANTS.

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GOOSEBERRIES.

50,000 Houghton, 2-2. 25,000 Downing, 2-2.

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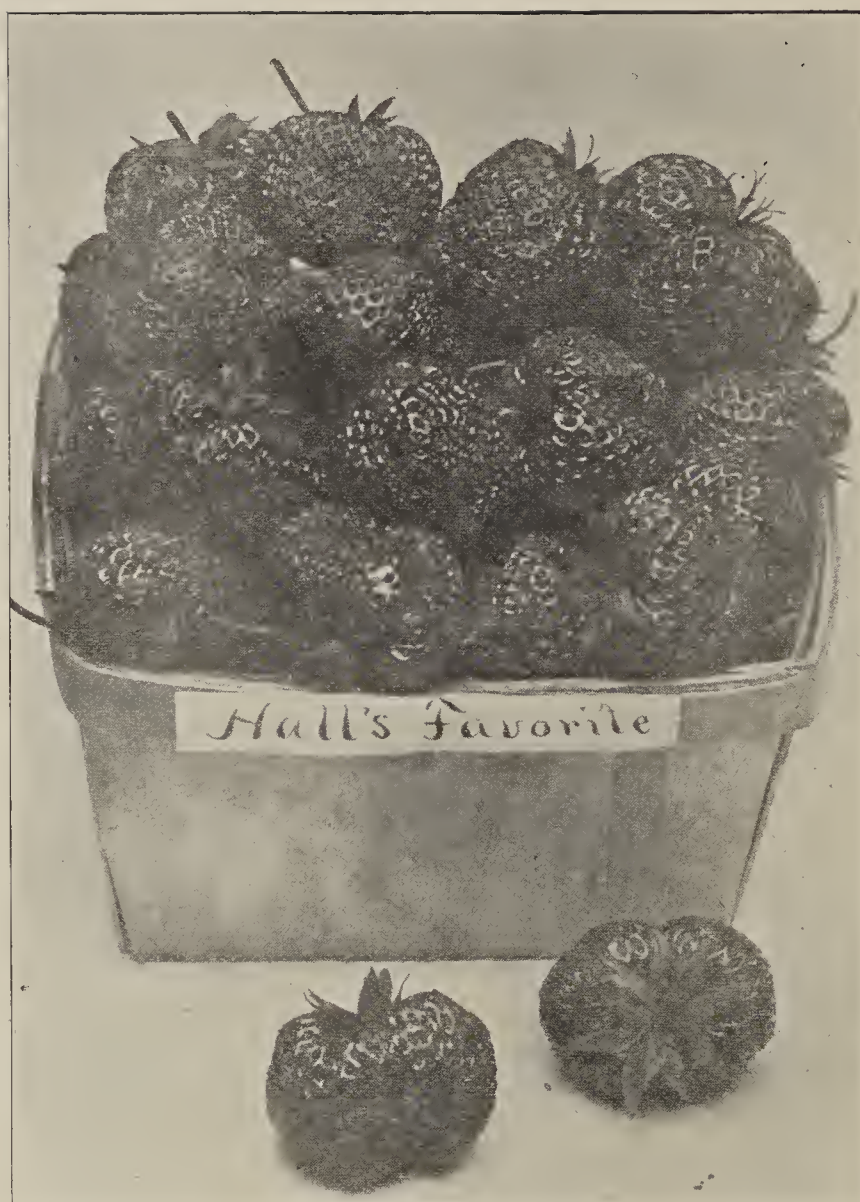
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NO. 12.

MICHIGAN.

PROMINENT HORTICULTURISTS MEET AT GRAND RAPIDS—A CABINET CHOICE —RESOLUTION ON THE TARIFF.

The twenty-sixth annual meeting of the Michigan State Horticultural Society was held at Grand Rapids December 1-3. President Morrill presided. Among the noted horticulturists present from other states and Canada were J. H. Hale of Connecticut; Professor John Craig, horticulturist at the Central Experimental Farm, Ottawa, Ont.; Professor M. V. Slingerland, assistant entomologist at Cornell University; E. A. Riehl of Alton, Ill., delegate from the Illinois State Horticultural Society; J. J. Harrison, of the Storrs and Harrison Co., nurserymen, Painesville, Ohio, and M. A. Thayer of Wisconsin. Of Michigan's noted horticulturists there were Hon. T. T. Lyon, ex-president of the society, and in charge of the experiment station at South Haven; Professor L. R. Taft, of the Michigan Agricultural College; R. M. Kellogg, Three Rivers; Thomas Gunson, of the Agricultural College, and C. J. Monroe of South Haven. There were a number of others present who are among the state's most successful fruit-growers. The morning session was passed in getting acquainted and listening to reports.

Regarding Michigan's advantage in the market, E. A. Moseley, Grand Rapids, said: "Michigan has access to more states and better markets than any other states in the Union. It is probably safe to state that our peaches were sold this year in at least twenty-two states. Michigan apples are sold in thirty states and territories. Michigan apple growers are not paying enough attention to cultivating, pruning and spraying, and as a result the fruit is losing its reputation. While traveling in other states I have often noticed in front of stores, when several grades and varieties were on sale, the sign, 'Michigan apples in barrels and baskets.'"

HORTICULTURAL EDUCATION.

"Education for the Horticulturist" was the title of the long and interesting paper by Professor Taft of the Michigan Agricultural College. The professor said there is no calling in which a liberal supply of brains can be used to better advantage than in that of the horticulturist. A practical education is essential in order to understand the nature of food required by different plants, the temperature at which they will develop to the best advantage, the character of the soil best suited to their growth and the amount of moisture needed. These and hundred of other points of interest and knowledge are supplied through the study of botany, chemistry, physics, entomology and other natural sciences. This knowledge is to be obtained through the agricultural college course, which is to be strongly recommended to the young man who expects to follow the

business of horticulture or agriculture. Instead of the popular idea that instruction at an institution of this kind consists of a mass of ologies, the course covers four years of intensely practical work.

Papers of interest to florists were read as follows: "Some Floral Problems," Thomas Gunson, Michigan Agricultural College; "The Carnation," N. B. Stover, Grand Rapids; "Rose Culture, Outside and Under Glass," Henry Smith, Grand Rapids.

"The Fruit Resources of Canada" was the subject of an illustrated lecture by Professor John Craig of Ottawa. Professor Craig treated the subject in an informal manner and with the aid of numerous views carried his auditors through the various fruit-producing sections of the Dominion, beginning at Nova Scotia, famed for its immense exports of apples, to the western borders of British Columbia, where the warm breezes of the Pacific make possible the culture of apples, pears, plums, peaches and figs in great profusion. He told of the abundant growth of cherries on Prince Edward Island, of the apple exports of Nova Scotia, now reaching 1,000,000 barrels annually, of the immense vineyards of Quebec and Ontario and the bleak expanses of Manitoba, where nothing in the way of fruit but the hardiest varieties of plums and apples can be grown.

The paper entitled "Object and Limitations of Pruning" by R. M. Kellogg of Three Rivers, brought out much instructive discussion.

FUTURE OF PEACH GROWING.

"The Future of Peach Growing in the United States" by J. H. Hale of Connecticut, was the title of one of the most interesting papers of the meeting. In the course of his remarks Mr. Hale took occasion severely to criticise Michigan growers for their negligence in sorting peaches for shipment.

Continuing, Mr. Hale warned the growers present that the conditions were greatly changed from what they were twenty years ago. Then the peach industry was largely confined to New Jersey, Delaware and Michigan, while now thousands of orchards have been set out in Missouri, Kentucky, Virginia, North Carolina, South Carolina, Colorado and Texas, all of which would in the near future be strong competitors on the market. This is proof positive that the Michigan growers must wake up, cast aside the old-fogy methods of the past and study every detail of the business as befits business men. He talked along the lines of requirements for success, and he outlined the first requirements as a love for fruits and flowers, and if a man is not in love with the farm he should leave it and make room for someone who will do right by the land. The next thing was the location, and he declared that the area for peach growing is practically unlimited, but the land best adapted to the raising of peaches is the sandy loam and elevation is essential.

Investigation has shown that with increasing refinement comes an increased demand for fruit and flowers, and the sooner growers realize that the number of persons ready and

willing to buy the finest grades of fruit is steadily on the increase, the sooner will they reap greater financial rewards. Mr. Hale spoke vigorously in favor of neat packages in shipment and cited many cases where care in this respect had resulted in a price nearly twice as great as in other cases.

In his own packing house Mr. Hale employs girls, and says that he pays them for their work and then pays them as much more for their taste. He believes in labeling fruit packages, and showed samples of the labels used on his farms. He advised every farmer to raise a flag pole and to name his farm, to fly the flag on all possible occasions and to advertise his fruit just as a successful manufacturer advertises his goods.

"Recent Work Among Our Insect Enemies" was the topic discussed by Professor M. V. Slingerland, of Cornell University, illustrated by stereopticon views of the apple worm, army worm and similar destructive pests. The best methods of exterminating insects were also enlarged upon. Prof. Slingerland advised early spring spraying with Paris green for apple worms, and the digging out of peach borers. Tobacco and ashes planted at the roots of peach trees he had heard recommended, but doubted its efficacy. Cutworms can be kept down from trees with a band of wool or cotton around the trunk and the slaughter can be made complete by sprinkling poison around the roots. The only way to kill squash bugs is to capture and destroy the old bugs while on the vines in the spring, as no insecticide has yet been found that is effectual. Army worms can be checked if several deep furrows are plowed ahead of their path with frequent pitfalls dug in the furrow. The worms fall into the holes and are unable to climb up the perpendicular sides. Professor Slingerland, in closing, put in a plea in behalf of the English sparrow, which he said killed millions of young apple worms every year before they had penetrated the fruit.

A CABINET CHOICE.

T. T. Lyon referred to the fact that the secretaries of agriculture had not appreciated the importance of the relative value to the country of horticulture. He proposed that the society make an attempt to have President McKinley appoint a man as secretary of agriculture who would give horticulture as much attention as he did the other branches of agriculture. He moved that a committee of three be appointed to draft a memorial to Mr. McKinley asking him to consider the wants of the horticulturist.

The president appointed as such committee T. T. Lyon, C. W. Garfield and C. J. Monroe.

As an expression of the sentiment of the society in regard to the matter, the following memorial was drafted and will be sent to Mr. McKinley by the secretary:

The Michigan Horticultural Society, assembled in annual convention, having appointed a committee consisting of President T. T. Lyon, C. J. Monroe and C. W. Garfield, charged with the duty of memorializing President-elect McKinley with reference to the selection of a broad man for secretary of agriculture, who shall adequately represent the large place that horticulture occupies in the agriculture of the nation, desires to record its loyalty to a man in the Middle West, whose utterances, works and influence have for years been on the side of progressive agriculture, and who, while especially championing the great dairy interests, has never neglected to acknowledge that horticulture is a leading factor in the evolution of American agriculture; therefore,

Resolved, That we heartily indorse the candidacy of Ex-Governor Hoard of Wisconsin for the position of Secretary of Agriculture in the cabinet of the incoming administration.

TARIFF RESOLUTION.

A communication from some of the horticulturists of St. Clair county, which was referred to a special committee, was reported on in the shape of the following resolution:

Resolved, That the secretary of the society address each of the Michigan representatives in the United States senate and house of representatives as follows: The State Horticultural Society, assembled in its annual meeting in Grand Rapids, respectfully calls your attention to the tariff law regarding summer fruits, vegetables and nursery stock, which, as it now exists, allows these products to be shipped into the United States from Canada duty free, while our farmers and gardeners are obliged to pay duty—amounting, in the case of berries, to two cents per pound—on all summer fruits, vegetables and nursery stock shipped from the United States into the Dominion of Canada. We submit that this is a hardship and heavy tax on our people from which they should be relieved, and we ask that you give the matter your immediate attention with a view to so amending the law as to correct the evil."

The resolution was unanimously adopted, the universal sentiment being that a great necessity for such legislation exists.

C. W. Garfield made a statement that aroused great surprise to the effect that Michigan horticulturists are paying from \$25 to \$50 per ton for German fertilizers, while German growers are using fertilizers made from the refuse of the fly-paper factory in Grand Rapids. This refuse is said to be particularly rich in properties that render oil meal so valuable. It is shipped to New York and thence exported to Germany.

INDIANA HORTICULTURISTS.

The thirty-sixth annual meeting of the Indiana Horticultural Society was held at Indianapolis, December 1-3. President C. M. Hobbs, of the firm of Albertson & Hobbs, Bridgeport, in his annual address stated that with the exception of a few localities where winter apples were scarce, the fruit crop of the state was very full the past season. Peaches were everywhere. Even apricots were productive. Tree fruits were cheap. There were three principal causes for this. The trees bore liberally; hard times with many unemployed had their effect, as poor people could not buy nearly so much as they desired; the unusual climatic conditions that in spring appeared about the same time over areas widely different as to latitude caused fruit to ripen at nearly the same time, thus throwing large quantities upon the market at once. It is necessary to grow all classes of fruits so that they will be well distributed over the entire season and then to utilize them in every way possible. Can, dry, take advantage of cold storage, make vinegar, etc. It is gratifying to note the increase in the exportation of fruits. He commended the National Fruit Growers' Union and thought it would greatly aid in the distribution of the crop and prevent injurious gluts.

Among those who participated in the meeting was George W. Campbell, of Delaware, O., who discussed "Grape Growing as a Business." S. D. Willard, Geneva, N. Y.; Professor Van Deman, of Virginia, and Professor Green, of Ohio, were also present.

Resolutions were adopted favoring the encouragement of nut culture by asking the state fair to give premiums for nuts, favoring the observance of a bird day, recognizing the value of the Indiana academy of sciences, indorsing the National Fruit Growers' Union, and its work of providing a better market.

IOWA.

MANY NURSERYMEN ATTEND THE STATE ASSOCIATION MEETING—SEEDLING TESTS—AN OLD CONTROVERSY.

Among the many who attended the annual meeting of the Iowa State Horticultural Society at Des Moines, December 8th, were: Silas Wilson, Atlantic, president of the American Association of Nurserymen; C. L. Watrous, Des Moines, vice-president for Iowa and chairman of the executive committee of the American Association of Nurserymen; M. J. Wragg, Waukegan; J. P. Andrews, Faribault, Minn.; Henry Schroeder, Sigourney; W. M. Bomberger, Harlan; D. A. Porterfield, Traer; A. F. Collman, Corning; Wesley Green, Davenport; W. H. Guilford, Dubuque; H. D. McCoy, Knoxville; Elmer Reeves, Waverly; R. P. Speer, Cedar Falls; Samuel Park, Ottumwa; B. F. Ferris, J. C. Ferris, Hampton; W. C. Haviland, Fort Dodge; M. E. Hinkley, Marcus; W. E. Chapin, Des Moines; E. M. Sherman, Charles City; L. O. Williams, Council Bluffs; F. E. Pease, Des Moines; Professor F. W. Taylor, Lincoln, Neb.; Clarence Wedge, Albert Lea, Minn.

President F. M. Powell, of Glenwood, in his annual address, said:

Orchard fruits of all kinds should be tested on their own roots. Experienced orchardists in other countries favor root cuttings and sprouts, as developing trees of longer life and greater productiveness than those propagated by other methods. This process has been tried in this country to a limited extent only. It seems wise, therefore, to recommend that station experimenters and planters give this method more careful and extended attention.

I am inclined to favor two regular meetings of the society each year; one to be called at the time of the state fair, or at some earlier date. There is much of interest pertaining to the work during the fair season, that can be more favorably considered in this connection than at any other time.

SEEDLING TESTS.

The secretary and librarian, George Van Houten, called attention to the seedlings of the state. He said:

At the Southwestern meeting last winter, at the state fair this year and at many of our county fairs, seedlings have been shown of great promise. I have examined many of them during the year and have made notes of some of them, and consider that there is a prospect of getting several valuable varieties of those now in sight, that is, under observation by the members of the society. Some are very large, some are exceptionally fine and some of them are good keepers. Some of the parent trees have attained good age and are yet in a thrifty condition and some few have been propagated, but with most of them there is no one to boom them, and we are liable to lose some valuable things by neglecting them. The great possibilities in the seedlings of the state should admonish us to delay no longer, but we should at least secure scions and distribute them to our trial stations and as many fruit growers as will plant them, for the distribution will cost but little and the benefits may be very great. This is not meant as a measure to displace the systematic crossing of our desirable varieties, for this work should go right on, but we should remember that nearly all the varieties we now have are the result of chance crosses and seedling production, and when we realize that we have dozens of varieties in the state that appear to be just what we need, it looks as though we were neglecting an opportunity in not gathering up and disseminating those that promise to meet our requirements. Many of these varieties are in the hands of people who do not know how to propagate and besides some are so modest that they do not like to push their own productions, but we can well afford to give them a trial. It is probable that some of the so-

called seedlings will prove to be strays, but even if they are old varieties we should test them, for they may be just what we need.

AN OLD CONTROVERSY.

C. L. Watrous made a vigorous attack upon the state experiment station methods under Professor J. L. Budd. He said:

I believe Iowa bears the unenviable distinction of standing alone in following the plan of making sales strictly for cash in advance of its subjects of experimentation in horticulture before the experiments have shown whether the things are valuable or worthless and damaging to purchasers.

The amount of nursery stock at the state nursery is much greater than is commonly supposed. I have it from a practical man, who has examined the young stock there this year, that there has been budded about 20,000 peaches, 4,000 to 5,000 pears, 30,000 to 40,000 plum, 15,000 to 20,000 cherry, partly by budding and partly by grafting, and about 100,000 apples, root grafted. This is only his estimate, but he is a competent and careful judge, and was fully convinced that what he saw was not an experiment station, but a large nursery.

For every dollar that the state has received for Russian trees in the past ten years, I estimate that the farmers of Iowa have lost at least ten, counting their time and labor upon dead or unfruitful trees. So complete has been this failure in the southeast portion of the state that the society which met there last week, after a full discussion, ordered a committee of five to draft resolutions, which they passed unanimously. This is one of them: "Resolved, That we take this method of warning all persons that foreign varieties of the apple, pear and plum, particularly those of Russian origin, recommended and sold by Professor Budd, and sent out from the Agricultural College at Ames, have, as far as they have been tested in Southeast Iowa, proven failures, and that we believe that about all the varieties of these Russian fruits so recommended and sold have been tested therein."

The *Iowa State Register*, Des Moines, the horticultural column of which is conducted by Professor Budd, said editorially:

Captain Watrous states that he has been told that the proceeds of the sales at the state experiment station at Ames "have annually averaged from \$5,000 to \$10,000 or more," and "that these sums of money, whatever they have in fact been, have been paid directly into the hands of the manager of the nursery, in flat violation of law." Possibly the trustees and officers of the State Agricultural College have been remiss in their duties, but we cannot believe that they have permitted the laws of the state to be willfully and criminally violated in one of the college's departments during all the years the state experiment station has been in operation.

Professor Budd has made mistakes, and some of his importations, buddings, crossings, etc., have proven to be worthless; but he is capable, honest and deserving, and we do not believe that he has knowingly committed a criminal or wrongful act during all the years of his service of the state. He is now in Arizona, but the experiment station and all of its books and papers are at Ames ready for investigation.

VIRGINIA STATE CERTIFICATE.

Of the following sample certificate, W. G. Johnson, state entomologist of Maryland writes to W. T. Hood & Co., Richmond, Va.:

"Yours of the 14th inst., together with form of certificate, has been received, and in reply would say that it is satisfactory. This certificate attached to each and every box or package of trees shipped into Maryland will comply with all the requirements of our law."

CERTIFICATE OF INSPECTION.

This is to certify that I have this 27th day of October, 1896, examined the Nursery Stock consigned in this package, and that I pronounce the same to be free from San José Scale or other injurious insects or fungi.

W. B. ALWOOD, Inspector,

By J. H. HEAVENER, Deputy.

MINNESOTA.

AN ELABORATE PROGRAMME OF THE STATE SOCIETY—WASTED LAND— FUTURE OF SEEDLING APPLES.

The thirtieth annual meeting of the Minnesota State Horticultural Society was held at Minneapolis, December 1-3. The president of the society is J. M. Underwood, president of the Jewell Nursery Co., Lake City, Minn. Among other prominent nurserymen and horticulturists in attendance were: Alderman Wyman Elliot, Minneapolis; George J. Kellogg, Janesville, Wis.; Professor N. E. Hansen, Brookings, South Dakota; J. P. Andrews, Faribault, Minn.; J. S. Harris, La Crescent; Clarence Wedge, Albert Lea, Professor S. B. Green, St. Anthony Park; S. D. Richardson, Winnebago City; E. H. S. Dartt, Owatonna; J. Cole Doughty, Lake City.

In his annual address President Underwood called attention to the useless waste of lands in all the farming communities on account of the wide roadways, and pointed out that in a county the size of Wabasha, with 18 townships, there are 8,000 acres of roadway worse than wasted because they are a prolific ground for the growing of weeds. This land is worth at least \$24,000, and on the same score the land wasted in a state the size of Minnesota would be worth \$78,109,560.

The annual report of the secretary, A. W. Latham, of Minneapolis, was filled with interesting facts showing the steady growth of the society from very small beginnings. The membership roll has increased from a very few 24 years ago to 512 to-day. One of the main features of the society each year has been its list of fruits which could be recommended to be grown in Minnesota. The annual displays at the state fair have been increasing in quantity and excellence every year, and with the aid of the farmer's institutes a great work is being accomplished.

Under the title of "Medicine for the Tree Sharks," J. P. Andrews, of Faribault, taking it for granted that there are dishonest tree agents, scored them and suggested that one of the best remedies was to have the newspapers advertise them as soon as they are reported to the secretary of the society. The paper was warmly criticised and supported by various speakers. It was pointed out that the American people like to be humbugged, and there was no effectual method of teaching a man whom to trust in the tree business.

SEEDLING APPLES.

"Minnesota Seedling Apples, What They Are and Their Value," was the subject on which J. S. Harris, of La Crescent, spoke. Mr. Harris, who is known as an authority on seedlings, and who has probably done more experimenting than any other man in the state, said he believed that in a decade more than half of the apples raised in the state and in the Northwest would be from seedling varieties originated in Minnesota, and that while such kinds as the Duchess would be retained, it would be more through regard for its past and its relations to the native variety than from the fact of its superiority over the others.

Professor Hanson referred to experiments with American and Russian apples at the Brookings station. Professor J. L.

Budd of the experiment station at Ames, Iowa, who is now in Arizona, contributed a paper on "The Present Status of the Hardier Russians."

Professor Green made a verbal report of the experiments carried on at the Central station of the University school. He spoke of the excellent reputation of the school, and stated that it was the standard by which other schools in the United States were compared. It was undoubtedly the best in the country. He said that over 1,700 people in delegations had visited the school the past year, coming from all parts of the country. Several delegations of fully 100 had come from North and South Dakota.

M. Pearce, of Chowen, gave a practical demonstration of the natural laws of growth, with reference to the roots. He had a small tree which he exhibited to carry out his theory. He claimed that there were three kinds of roots, those near the top of the ground which supplied the tree with food, those at the bottom which are to supply moisture, and the fruiting roots or those which gathered the life and essentials for the production of the fruit on the tree. These are between the first two. Mr. Pearce told how the peach could be raised with profit in Minnesota. He raises peaches by using plum stock and top grafting.

THE FORESTRY PROBLEM.

J. O. Barrett, secretary of the State Forestry Association, discussed "Forestry and the Water Problem." He showed that while the annual precipitation for Minnesota has not greatly lessened during a period of several years back, the lakes are fast drying up, and the rivers are running low. The water supply is being threatened. His proposed remedy is a systematic planting of trees to counteract the greater demand for moisture which results from the cultivation of the soil. At least one-third of the remaining natural trees in the northern part of the state should be preserved, he said, and for every acre of new land broken, one-half an acre of trees should be set out.

A paper on "Deciduous Trees," by F. H. Nutting, engineer of the park board, Minneapolis, gave a complete list of the deciduous trees more adapted for growing in a Minnesota climate.

"Practical Thoughts on Growing Shade Trees," by Wyman Elliot, of Minneapolis, advocated the use of nursery grown trees in preference to forest trees, even though the forest tree might be as fine and symmetrical. In growing a shade tree from the seed great care must be taken from the start, the maxim being a true one, that "as the twig is bent, so the tree is inclined."

J. Cole Doughty told in a humorous way how to run a nursery.

There were many valuable papers on the elaborate programme which attested the activity of one of the leading state horticultural societies of the country.

The National Irrigation Congress at Phoenix, Arizona, was attended by 1,000 persons representing 27 states. These officers were elected: President, G. B. Booth, California; vice-president, Governor F. H. Briggs, North Dakota; secretaries, James McClintock, Arizona; A. T. Kellogg, Colorado; L. S. Howlett, Washington.

A. WILLIS.

A. Willis was born in Delavan, Wis., in 1843. He is the eldest son of L. H. and Mary M. Willis. He received his education principally at the country school and the high school in the neighborhood of his home.

His experience as a nurseryman was begun in the employ of J. Shearman at Richford, Ill., in 1864 and this was continued with various parties in Illinois, Missouri and Indiana until the spring of 1871, when he went to Ottawa, Kas., as a contractor to grow stock for a firm in Missouri. This was continued during the years 1871 and 1872.

In the spring of 1873 business was begun on his own account. This promised fair success until the summer of 1874, when it became necessary to contribute his stock to feed a horde of hungry grasshoppers, and as he made another contribution of the same kind in the spring of 1875 and these contributions were apparently unappreciated by the grasshoppers and unprofitable to him, planting was suspended for the year 1876. A small plant was made in the spring of 1877 and plantings have been made regularly every year since. The amount has from time to time been largely increased until at this time the nursery is one of the leading establishments west of the Mississippi River. Other nurseries are also now established there, so at present Ottawa is probably the first nursery centre in the state. With the increase in planting has also come increased facilities in every department, until at this time the establishment is especially well provided with facilities for business in all departments.

Mr. Willis has never sought political preferment, but has served as member of the city council two terms and as president of the council for three years. He has also been for many years secretary of the board of trustees of Ottawa University, one of the best educational institutions in the West; has also for many years been president of the local Horticultural Society, and a member of the American Association of Nurserymen. He has always and yet does consider it his especial business to serve in the best manner the interests of the trade and of his chosen city and state.

Mr. Willis married in the summer of 1872 Miss Amelia Estesly, and now has a family of three daughters and one son. The eldest daughter, Miss Ola Willis, is an active assistant in the business.

IN HONOR OF GEORGE ELLWANGER.

Twenty-four friends of George Ellwanger, of the firm of Ellwanger & Barry, Rochester, N. Y., gathered on December 2d at the old family mansion to celebrate the 80th birth-

day of Mr. Ellwanger. Those who were present are known to all who have knowledge of Rochester's chief interests and several are known far beyond the city limits. They were: Gilman H. Perkins, Judge George F. Danforth, Dr. E. M. Moore, Joseph O'Connor, Professor W. C. Morey, Dr. Max Landsberg, Samuel Sloan, William F. Peck, Rev. Algernon S. Crapsey, Theodore Bacon, Professor S. A. Lattimore, Frederick A. Whittlesey, ex-President David J. Hill, Josiah Anstice, Edward S. Ellwanger, Dr. E. V. Stoddard, William C. Barry, George H. Ellwanger, Erickson Perkins, William D. Ellwanger, Rufus A. Sibley, Professor H. F. Burton, J. Moreau and C. B. Woodworth.

Joseph O'Connor, editor of the *Buffalo Enquirer*, in his speech, said:

To night we are here to celebrate the eightieth birthday of George Ellwanger. When he was born the great French revolution was filling the world with new and startling ideas. There is something significant in the German boy coming to this land at that time, and cultivating the flowers and trees and building up a beautiful kingdom of peace, a home beautiful in all its surroundings. The kingdoms which Napoleon founded have passed away, the governments which he created are no more, the crowns he presented are no longer worn by his favored ones, but the kingdom of the German child survives in all that is most beautiful and fragrant on earth. Such men have contributed much to bring about our national greatness.

It might be appropriate to celebrate his birthday in lyrics like those of Chaucer, and picture the flowers and plants singing matins in his praise, for the much that he has done to make the homes beautiful. He said to me a short time ago that he felt the shadow of life approaching, but I see some of the brightest and best minds in the country assembled about this table to do him honor, and I am impressed with the fact that there is nothing so beautiful as a peaceful, a serene, a calm old age—a well-preserved, hale, hearty old age, one with a clear conscience. May death be long delayed to those about our board, but when it comes, it comes in grace and strength and beauty.

Theodore Bacon, lawyer, scholar and wit, in a happy speech, presented Mr. Ellwanger a silver loving cup inscribed: "Amico; amici." "To a friend; friends."

The cup was then passed around, and amidst poetic quotations and lively sallies of wit, each one drank from it to the health of Mr. Ellwanger.

Mr. Ellwanger responded very briefly, but with much feeling, saying: "I am overpowered by these words and this beautiful present. I am not worthy of them. I can only thank you from the bottom of my heart for this great kindness, and for one of the most pleasant occasions of my life."

F. W. WATSON & CO., TOPEKA, KAN.—"We have been well satisfied with the results of our advertisements in THE NATIONAL NURSERYMAN, and will continue to use its columns."

J. C. GROSSMAN, WOLCOTTVILLE, IND.—"Enclosed find \$1 for THE NATIONAL NURSERYMAN for one year. Sample copy was received and I am much pleased with it."



A. WILLIS.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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
OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

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Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements.

 Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

Entered in the Post Office at Rochester, as second-class matter.

ROCHESTER, N. Y., JANUARY, 1897.

IMPORTANT TO NURSERYMEN.

Part of the programme presented by the Section on Entomology of the American Association of Agricultural Colleges and Experiment Stations, which met in Washington, D. C., November 10-13, will be of interest to nurserymen and dealers. It was furnished THE NATIONAL NURSERYMAN by the secretary.

Speaking of the Virginia scale law, Professor W. B. Alwood of Blacksburg, Va., said that after its passage systematic inspection was begun and ten different premises on which the San Jose scale was found were located the first two days. The inspection of nurseries and orchards has been vigorously pushed this season, and it is now thought that most of the infested districts are known. The scale has been found in some nurseries; but the infested stock has all been destroyed. Most of the infested places are at points widely separated and only two or three are considered serious. The history of each case has been worked out, and in every instance the pest was found to have been introduced on nursery stock from New Jersey, Maryland, Georgia and Louisiana. The powers given to the inspector are found to be ample; but on account of the lack of funds the work is very much handicapped.

Referring to the Maryland law, Professor W. G. Johnson said it was not perfect in every detail, but with a few alterations and modifications it would meet the requirements peculiar to the state. The present condition of nurseries was reviewed, the details of which were printed in the December issue of this journal.

Professor Alwood offered the following resolution, which was unanimously adopted:

Whereas, In consideration of the fact of the recent alarming spread of the San Jose scale in the Atlantic and middle states, and the further

fact that we believe its suppression can only be accomplished by carefully framed laws which should be enacted in the several states, therefore be it

Resolved, That the Section on Entomology of the American Association of Agricultural Colleges and Experiment Stations endorses the principle of special legislation for the suppression of this pest;

Resolved, That a committee of ten be created, with Dr. L. O. Howard, chief of the Division of Entomology U. S. Department of Agriculture, as chairman, which shall carefully prepare such memoranda as they deem best in relation to legislation dealing with the pest, and when so prepared this matter shall be submitted to the authorities of the several states concerned for such action as the legislatures thereof may choose to take;

Resolved, That it is the sense of this section that state inspection for the control and prevention of the dissemination of this pest upon nursery stock is imperative.

The following committee was appointed: Dr. L. O. Howard, U. S. entomologist, Washington, D. C., chairman; Professor W. B. Alwood, Blacksburg, Va.; Prof. W. G. Johnson, College Park, Md.; Professor F. A. Sirrine, Geneva, (Long Island Station) N. Y.; Dr. J. B. Smith New Brunswick, N. J.; Dr. J. A. Lintner, Albany, N. Y.; Professor F. M. Webster, Wooster, Ohio; Dr. G. G. Groff, Lewisburg, Pa.; Dr. A. D. Hopkins, Morgantown, W. Va., and Professor G. H. Powell, Newark, Del.

Dr. Howard has now on file in his office the opinions of all the members of this committee. He has received many valuable letters from other entomologists and a number of nurserymen on this subject. He is anxious to obtain as much information as possible and would like to have the opinions of many nurserymen who are interested in the question of legislation against insect pests. The data obtained in this way will be carefully scanned, and it is hoped a draft of a law may be obtained that will be universally satisfactory.

WESTERN WHOLESALERS.

The fourteenth semi-annual meeting of the Western Association of Wholesale Nurserymen was held at Kansas City, Mo., December 15th. The meeting was called to order by H. R. Blair, vice-president.

Letters of regret at being unable to attend were read from Stark Bros., W. F. Heikes, Jewell Nursery Co., and D. S. Lake.

The following officers were elected: President, A. L. Brooke, North Topeka, Kan.; vice-president, R. H. Blair, Kansas City, Mo.; secretary and treasurer, U. B. Pearsall, Lansing, Kan.; executive committee, A. Willis, Ottawa, Kan.; Peter Youngers, Jr., Geneva, Neb.; E. S. Welsh, Shenandoah, Ia.; J. L. Bagby, New Haven, Mo., and W. F. Heikes, Huntsville, Ala.

The committee on application of Stoner & Bruce to become members of this association, (appointed at last meeting), reported favorably upon the application and upon ballot the firm was unanimously admitted to membership.

A new committee on tariff on imported nursery stock was appointed consisting of three members: A. L. Brooke, chairman, F. H. Stannard and Peter Youngers, Jr.

A long interchange of views was had over the present freight tariff on nursery stock in carloads, which illustrated the importance of being extremely careful in billing in order to obtain class "B" rates. Release should also be made on all billing in order to avoid extra charges as provided by the tariff schedules, (to \$5.00 per cwt.) Mr. Brooke, member of

the national committee on freights agreed to try to get the present requirements simplified.

A detailed report of supply and condition of stock was made by each firm present, which developed the fact that the supply was lighter than at this time last year.

The association will meet at the Centropolis Hotel in Kansas City, Mo., on the third Tuesday in June, 1897.

FOR A HIGH SPECIFIC TARIFF.

A meeting of the Eastern Nurserymen's Association was held in the Chamber of Commerce rooms in Rochester, Dec. 23d. William C. Barry presided and William Pitkin, secretary of the Chase Brothers Co., Rochester, was secretary. There were present Mr. George, of Storrs & Harrison Co., Painesville, O.; Theodore Smith of W. & T. Smith Co., Geneva, N. Y.; Mr. Henry, of Sears, Henry & Co., Geneva; George Atwood, Geneva; C. W. Stuart, Newark, N. Y.; James F. Le Clare, Brighton, N. Y.; E. C. Pierson, Waterloo, N. Y.; Irving Rouse, John Charlton, Thomas W. Bowman, Charles Little, Mr. McGowan, of W. S. Little & Co.; Horace Hooker, Robert C. Ades, Robert C. Brown, of Brown Brothers Co.; A. D. Pratt, John Glen, of Glen Bros. Co., of Rochester.

The object of the meeting was a discussion of the tariff. After most of those present had expressed their views which were unanimously for a high specific tariff on all imported nursery stock, resolutions were adopted declaring in favor of a tariff providing for a specific duty of \$2 per thousand on all imported seedlings, 3 cents on roses, budded, grafted or on own roots, and 30 per cent. ad valorem on all shrubs.

The following committee was appointed to go to Washington to present the matter to the congressional committees: William C. Barry, Irving Rouse and William Pitkin.

A PROMISING NEW GRAPE.

At the annual fair of the American Institute in Madison Square Garden, New York, from September 28th to October 29th last, John Charlton exhibited his new seedling red, No. 2.

The committee on fruit reported as follows: "No. 2. A cross between Brighton and Mills. Cluster medium compact, not shouldered; berries variable from medium to large; quality very fine; two seeds, free from astringency; pulp much like Mills. Very valuable as an amateur grape."

This grape was exhibited at the Western New York fair here in Rochester in 1895, when a first premium was awarded it. It was also awarded a first premium at the same fair in 1896.

Mr. Charlton is very sanguine of its proving to be the finest grape in quality yet introduced. We shall watch it with interest.

ONTARIO FRUIT GROWERS.

The annual meeting of the Ontario Fruit Growers Association was held at Kingston, December 2-4. There were papers by Professor Shut on "Gardening in Relation to Civilization," and Professor Fowler on "Fertilization of Fruit Trees and Causes of Failure," and F. G. K. Pattison, of Grimsby, on "Overplanting." There were addresses by Hon. Sidney

Fisher, dominion minister of agriculture, and Hon. John Dryden, minister of agriculture for the province.

A resolution was adopted calling for the maintenance of present duties on fruit and fruit trees, "to prevent the utter ruin of Canadian nurserymen by United States nurserymen driven to sell their stock at frightful loss, owing to the enormous production by southern nurserymen."

OPERATION OF THE MARYLAND LAW.

RICHMOND, VA., Dec. 15.—On the subject of the Maryland insect law, W. T. Hood & Co., Old Dominion Nurseries, said: "We are of the opinion that the action of the various states, and public opinion will soon require that the national government take control of the matter and pass a law so that interstate-commerce will not be impaired. We are of the opinion that legislation is to the benefit of the nurserymen and also of the planter. There can be no doubt that great injury has resulted in some instances from the dissemination of infected stock. The direct loss on this account has been very light as compared to the loss which has resulted indirectly to the nurserymen through the decrease of trade which has been directly caused from fear to plant freely when in planting the risk had to be incurred of this San Jose scale and other injurious insects.

"Every one who has had much experience in handling agents appreciates how very quickly the general public will 'catch on' to any plea they can offer as a reason for not ordering. The agent thereby is discouraged and sales are restricted. In our own business this season, in order to meet the requirements of the Maryland law, we have had a state inspector on our packing grounds during our entire packing season and all of our stock has been inspected, also all stock was fumigated with hydrocyanic acid gas before being trenched in the packing ground. We did this, though our nursery has a clean bill of health.

"A shipment of trees which we made this fall to Baltimore, though it had been inspected and the stock also fumigated, yet having been shipped without the certificate required by law, was refused by the nurseryman to whom it was shipped. He notified us at once that under the law of Maryland he could not unpack the stock, and it was therefore held subject to our order until properly inspected. By a later mail we were advised by the state entomologist of Maryland that he had, at the request of the consignee, inspected the stock, and that it had been accepted. He further advised that the conditions of the law would be enforced hereafter. We doubt if there are three nurserymen in the United States who in handling stock meet the requirements of this Maryland law as strictly interpreted and as enforced against us in the case cited."

Apple exports for the present season up to December 12th amount to 2,108,150 barrels, as against 461,759 in 1895-6, and 1,024,797 in 1894-5. There have been shipped this season to Liverpool 137,675 barrels, to London 486,893, Glasgow 352,785, to other points 130,797.

In Liverpool Baldwins are quoted at \$1.68 to \$2.88 per barrel; Greenings, \$1.44 to \$2.94; Northern Spys, \$1.80 to \$2.52; Snows, \$3.60 to \$3.78; Kings, \$3.36 to \$4.20; Russets, \$1.92 to \$3.06.

Among Growers and Dealers.

R. G. Chase, of Geneva, will spend the winter in the South.

Edward Wachendorff, Atlanta, Ga., was killed by cars on December 10th.

E. C. Williams, Zanesfield, O., will exchange Rock maple for plum, peach or cherry.

All who are seeking apple grafts should communicate with D. S. Lake, Shenandoah, Ia.

Nelson Bogue, Batavia, N. Y., is president of a branch of the American Fruit Growers Union.

Crab apple seed, fresh from French mills is offered by Thomas Meehan & Sons, Germantown, Pa.

Evergreens and deciduous trees in large quantities are offered by the Evergreen Nursery Co., Evergreen, Wis.

E. G. Mendenhall, Kinmundy, Ill., is secretary-treasurer of the Illinois branch of the American Fruit Growers' Union.

Berry plants to the number of 5,000,000 are offered by Charles Wright, Seaford, Del.; also 50,000 peach trees and peach seed.

Small fruits at rock bottom prices is the announcement of W. N. Scarff, New Carlisle, O. In another column he presents an attractive list.

The Willowdale Nurseries, Rakestraw & Pyle, Willowdale, Pa., are at the front with a general assortment of carefully graded nursery stock.

Miller's Red raspberry at prices to suit the times can be obtained of the West Jersey Nursery Co., Bridgeton, N. J.; also general nursery stock.

Charles J. Brown, of the firm of Brown Brothers Co., Rochester, N. Y., has just been elected president of the Rochester Chamber of Commerce.

To keep varieties true to name is the special aim of Samuel Kinsey & Co., Kinsey, O. They have a surplus list in another column which may interest many.

P. D. Berry, Dayton, O., has 2,000,000 strawberry plants, all from new beds, and 2,000,000 red and black raspberry, blackberry, gooseberry, currant, etc.

Jay Wood, Knowlesville, N. Y., is still dealing in the high grade nursery stock for which he has long been noted. He will give special prices upon application.

A large and especially fine assortment of peach, strawberry, asparagus and grape, is offered in the surplus list of W. M. Peters' Sons, Wesley, Worcester county, Md.

The large stock of Benjamin Chase, Derry, N. H., has not been inspected, yet he guarantees that it has not been infested with San Jose scale. He deals in labels of all kinds.

George Peters & Co., Fairmount Nurseries, Troy, O., offer apples, Marianna plum, Mahaleb and French pear seedlings at special prices on carload lots; quality strictly first-class.

Special attention is called to the announcement in another column of the firm of C. H. Eldering & Sons, bulb growers and wholesale exporters, Helmstede, near Harlem, Holland.

The old house of Ilgenfritz, Monroe, Mich., on January 1st will enter into its fiftieth year in the nursery business. They

are offering bargains in standard pear and apple and ornamental stock.

Small fruits is the specialty of Allen L. Wood, Rochester, N. Y. He has all the standard varieties, and as novelties the strawberry-raspberry, raspberry-blackberry, Golden Mayberry and Logan berry.

Every facility for growing and handling a full line of general nursery stock is possessed by W. T. Hood & Co., the Old Dominion Nurseries, Richmond, Va. Peach, standard pear and apple are specialties; also Japan pear seedlings.

W. G. Johnson, state entomologist of Maryland, writes as follows to W. T. Hood & Co., Old Dominion Nurseries, Richmond, Va.: "I am very glad to note that you have taken the extra precaution to treat your nursery stock with hydrocyanic gas, before placing it upon the market."

At the Reading, Pa., exhibition, Thomas Meehan & Sons, Germantown, Pa., took four first premiums for carnations, out of the seven for which they entered. They were as follows: For 100 white, Lizzie McGowan; for fifty crimson, Crimson Coronet; for fifty pink, William Scott, and for fifty white, Lizzie McGowan.

First class nursery stock in general assortment is offered by the Sherman Nursery Co., Charles City, Ia. Their line includes American white spruce and other evergreens in all sizes, hardy apple trees, grape vines, currants, raspberries, blackberries from root cuttings, strawberries, shade trees, forest tree seedlings, flowering shrubs and roses.

The employes of George Bunyard of the Royal Nurseries, at Maidstone, England, in recognition of the centenary of the firm's existence, on November 25th, presented Mr. Bunyard a handsomely illuminated address on vellum, comprising a sketch of the Maidstone offices and heraldic and other designs, the whole set in a massive carved oak frame.

MISSOURI HORTICULTURISTS.

The annual meeting of the Missouri State Horticultural Society was held at Marceline December 8-10. Much interest in the proceedings was taken by members and horticulturists generally who attended. The society provided good talent in each department. The papers read were intelligently discussed. The display of fruit and flowers was especially fine, and proved the resources of Missouri.

CALIFORNIA FRUIT GROWERS.

The committee appointed by the State Fruit Growers' Association to memorialize congress relative to tariff upon foreign fruits and fruit products has recommended a tariff of 2½ cents a pound on raisins, Zante currants and other grape products; on olives, 20 cents a gallon; olive oil, \$1 a gallon; almonds, 6 cents on unshelled and 10 cents on shelled; prunes and plums, 2½ cents; figs, 2 cents a pound; comfits, sweetmeats, preserved fruit, etc., 40 per cent. ad valorem; oranges, lemons and figs, 20 cents per cubic foot in bulk or not less than \$2.50 per 1,000. The report was adopted.

President Cooper urged further importation of ladybugs from Australia to destroy insect pests. He said the annual loss by insect pests in the United States is over \$3,000,000.

Obituary.

Ernest G. Lodeman, instructor in horticulture in Cornell University, and assistant horticulturist at the Cornell Experiment Station, committed suicide on December 2d, at Mexico, Oswego county, N. Y., during an attack of acute melancholia. Mr. Lodeman was born in Neufchatel, Switzerland, on May 3, 1867. At the age of 2 years he came to America with his parents. In 1870 his father became professor of modern languages in the State Normal School of Michigan, from which institution the son graduated in 1889. It was there that Mr. Lodeman met Professor L. H. Bailey, who when he went to Ithaca, N. Y., secured for Mr. Lodeman a position in Cornell university. In 1895 Mr. Lodeman received the degree of Master of Science from the university. The Macmillians' published his book on "The Spraying of Plants" as one of The Rural Science Series. He had collected a greater number of species and type forms of the cultivated Begonias than exists in any other American collection.

In the college he had particular charge of classes in the propagation of plants, spraying, greenhouse construction and pomology. In connection with the experiment station work he prepared many important bulletins, and the spray-calendar idea which originated with him is now an established type of publication. When the station was asked to extend its work directly among horticultural communities Mr. Lodeman threw himself enthusiastically into the work and soon became a personal favorite among the fruit growers of Western New York. All the work upon grapes and strawberries, two large industries in the state, was entrusted to him, together with the treatment of certain plant diseases. His last journey made to Oswego county was to inspect experiments in fertilizing strawberry fields, and here under some impulse induced by the strain of overwork he met his tragic end.

ANTHONY WATERER.

Anthony Waterer died on November 16th at his residence, Knap Hill, England, in his 75th year. Of Mr. Waterer the *Gardeners' Chronicle* London, says: The name of Anthony Waterer, of Knap Hill, was a good deal more than a household word among his associates and fellow-countrymen. In the United States, on the Continent, wherever rhododendrons can be grown, there were the name and fame of Anthony Waterer established. So long ago as 1832, we read of a hybrid raised by him between *Rhododendron arboreum* and *R. caucasicum*, whilst hundreds of azaleas, even at that time, owed their origin to him. Since then not a year has passed without the introduction of new varieties; whilst so high was his standard, that the new introductions were certain to be improvements. A new race of azaleas was raised by him from the Californian *R. occidentalis* only a few years since. In many cases, a particular variety which had won the commendation of the experts, was not allowed to get into commerce, either because it did not satisfy the exacting requirements of the raiser, or because he had still better in reserve."

The Knap Hill Nurseries, which had long been notable, grew in size, importance and reputation under Anthony Waterer's successful management, says *Garden and Forest*, and at the time of his death had become probably the greatest nursery of hardy plants in the world, although a larger number of species of plants were cultivated in others. For rhododen-

drons, however, hardy azaleas, to which of late years Mr. Waterer gave special attention, and the choicest conifers, it had no rival. Anthony Waterer had many correspondents in the United States. His connections here date from the time of Downing, who imported plants from Knap Hill for the Capitol grounds at Washington. After Downing's death the unpaid bill for these plants was found among his papers by his executor, Henry Winthrop Sargent, of Fishkill. Mr. Sargent was a classmate of Charles Sumner, and through his assistance he succeeded in obtaining from congress an appropriation to pay this bill. From this sprung the friendship which existed for years between Mr. Waterer and Mr. Sargent, who for many years was one of the principal horticulturists of the United States. From this friendship others sprung, until gradually all the principal cultivators of hardy trees and shrubs in the United States became friends and clients of Anthony Waterer, who of late years has devoted special attention to breeding rhododendrons capable of supporting the climate of this country. In 1876, when the Knap Hill Nursery made a special exhibit of rhododendrons in Philadelphia, Mr. Waterer visited the United States. A man of the highest integrity, rough in manner, but kind of heart, Mr. Waterer was a type of the English cultivator of the old school not often seen now. We all owe him a debt of gratitude for the plants he has produced for us, and those who have had the advantage of his friendship will never forget his strong and interesting personality."

VERMONT HORTICULTURISTS.

The Vermont Horticultural Society was organized at Burlington on December 3d. The largest apple grower in Vermont, T. L. Kinney, of Grand Isle county, was made president. Professor F. A. Waugh of the experiment station at Burlington, is the secretary. There was a fine exhibit of apples.

F. H. Horsford, discussing "The Nurseryman's Responsibility," said that the commercial grower should furnish good, strong healthy stock, true to name and in good condition; but his responsibility is then at an end. There have been many frauds perpetrated upon the farmers by the tree agents, but for the most part the circumstances make it impossible to fix the responsibility. The planter handles his trees carelessly, paying small attention to labels. The orchard is then neglected, trees are broken down by cattle or storms, and may come up from the roots, so by the time the trees begin to bear it is quite impossible to discover what the varieties were originally. Some of these risks fall upon the nurseryman, who, in self-protection, must ask a higher price for his goods.

Regarding plum culture in Vermont L. A. Macomber said that the hardiest varieties of the Domestica class may be depended on for a full crop of plums about once in three years, and a light crop one of the two intervening years. He recommends the improved native plums, especially those belonging to the Americana group. Of these he has grown numerous seedlings in addition to standard varieties. The Americana plums bear a full crop practically every year if proper cross-pollination is assured, and Mr. Macomber thinks that the best of them, such as De Soto and Wolf, are equal to Lombard in quality.

KANSAS HORTICULTURISTS.

The thirteenth annual meeting of the Kansas Horticultural Society was held at Topeka December 9—11. On the preceding day the directors met to discuss a new constitution which was afterward adopted by the society. The first day's session was devoted to reports upon the fruit crop, by county representatives. The majority of these reports showed that the crop was light, owing to dry weather. One of the most valuable features of the meeting was the selection of the best varieties of fruit for planting in Kansas. Long lists resulted from the ballots. Among those who participated in the meeting were: F. Holsinger, Rosedale; William Cutter, Junction City; A. H. Griesa, Lawrence; Dr. Stayman, E. J. Holman, Leavenworth; B. F. Smith, Lawrence; S. T. Kelsey, Kawana, N. C. The president of the society, Fred Wellhouse, Topeka, the "apple king," presided and J. W. Robinson, Eldorado, the "corn king" responded to the address of welcome by Mayor C. A. Fellows, of Topeka.

A NEW FIRM.

S. A. Hertzler, of Menno Township, formerly of Sunny Side fruit farm, Ferguson Valley, and N. C. Beachey, of the Flower City Nurseries, Rochester, N. Y., have formed a partnership for the purpose of testing new varieties of fruits. Such experimental work will evidently promote fruit culture in this locality. These gentlemen are men of large experience in their respective lines, and their labors will doubtless become a source of profit to them and a benefit to the community.—Belleville, Pa., *Times*.

HALL'S FAVORITE.

This new berry, the subject of our frontispiece, was originated about four or five years ago by J. W. Hall, Marion Sta., Md., who describes it as follows: "I have fruited Hall's Favorite four years' on different soils and it does well on all. I have been in the fruit business twenty-five years and during that time we have had numbers of strawberries, but the Hall's Favorite is the strongest grower of any variety that I have grown or seen grow. I have seen the vines stand twelve to fifteen inches high, and land was not rich, either. It bears a large crop of fine berries that run large and uniform in size through the season and are of beautiful color.

"It is firm and a good shipper. It sold in the New York market the past season for twenty cents, when other kinds were bringing nine and ten cents per quart. It is considered by good judges to be the best strawberry yet grown.

"Berry growers for some time have been wanting a better berry than Bubach No. 5. We have it in Hall's Favorite. It ripens a little earlier than Bubach; is larger in size. Through the season it is as productive if not more so, and a better carrier. It is of better quality than Bubach by far and as a grower the Bubach is no comparison. The plant is very healthy. The berry has fruited at the Maryland and Ohio experiment stations and flattering reports have been received.

A FRUIT TREE CASE.

S. M. K. Ebert, agent for the Flemer & Felmy Company, nurserymen, of New Jersey, appeared before Magistrate Biser in Frederick for the purpose of bringing suit against William H. Tyler, of this county, says the Brunswick, Md., *Herald*, to

make him responsible for a number of fruit trees which were delivered to him some time ago. Mr. Tyler claims to have sent the trees back to New Jersey after having discovered that the roots were to some extent infested with disease. The trees have not been received by the nurserymen, hence the Frederick agent seeks to compel Mr. Tyler to pay the original amount due on the goods.

The trees, it is alleged were sent to this state without a certificate from an official certifying that each one was free from disease, which is in violation of a recent act of the Maryland legislature, which provides that all fruit trees received in this state from other states must contain a certificate from a government official to the effect that they are absolutely free from disease. As the trees were, it is alleged, unlawfully sold in the State of Maryland, Magistrate Biser concluded that money due on them could not be lawfully collected, hence he dismissed the case. Suit was afterward instituted before Magistrate White. State Entomologist W. G. Johnson has examined the trees and says they are free from disease.

HORTICULTURAL SOCIETY OFFICERS.

SHAWNEE COUNTY (KANSAS).—President, A. L. Brooke, North Topeka; vice president, A. B. Smith; secretary, Mr. Charles; treasurer, John Armstrong.

NORTHERN ILLINOIS.—President, J. L. Hartwell; vice presidents, A. Bryant, H. R. Cotta, A. J. Swezey; secretary, Dwight Herrick; treasurer, L. Woodward.

ONTARIO.—President, W. E. Wellington, Toronto; vice-president, W. M. Orr, Fruitland; secretary-treasurer, L. Woolverton, Grimsby; and 13 division directors.

IOWA.—President, F. M. Powell, Glenwood; vice president, C. F. Gardner, Osage; secretary, George H. Van Houten, Lenox; treasurer, William M. Bomberger, Harlan.

KANSAS.—President, Judge Fred Wellhouse, Topeka; vice president, J. W. Robinson, Eldorado; secretary, William H. Barnes, Topeka; treasurer, Frank Holsinger, Rosedale.

SOUTHEASTERN IOWA.—President, F. O. Harrington, York Center; vice president, Will T. Richie, Albia; secretary, C. W. Burton, Cedar Rapids; treasurer, Wesley Greene, Davenport.

CENTRAL NEW YORK.—President, A. D. Perry; vice presidents, S. T. Betts, L. E. Marquisee, W. J. Smith, J. W. Smith, E. A. Powell, F. C. Brower; treasurer, F. H. Ebeling, re-elected; secretary, R. Bard.

MICHIGAN.—President, Roland Morrill, of Benton Harbor; secretary, E. C. Reid, of Allegan; treasurer, Asa W. Slayton, of Grand Rapids; members of the executive committee, Judge F. J. Russell, of Hart, and Robert D. Graham, of Grand Rapids.

MINNESOTA.—President, J. M. Underwood, Lake City, re-elected for the fifth time; trustees, elected for three years, Professor S. B. Green, of St. Anthony Park, and Clarence Wedge, of Albert Lea; treasurer, re-elected, A. H. Brackett, of Long Lake.

SOUTHERN ILLINOIS.—President, J. Webster, Centralia; first vice president, J. W. Stanton, Richview; second vice president, L. N. Beal, Mt. Vernon; third vice president, D. W. Prindle, Villa Ridge; secretary and treasurer, E. G. Mendenhall, Kinmundy.

INDIANA.—President, C. M. Hobbs, Bridgeport; vice-presidents, E. Y. Teas, Irvington, Mrs. W. W. Stevens, of Salem, J. A. Burton, of Mitchell, George S. Newton, of South Bend; secretary, Professor J. Troop, Lafayette; treasurer, Isham Sedgwick, Richmond; executive committee, A. W. Butler, of Brookville, W. H. Ragan, of Greencastle, and L. B. Custer of Logansport.

The Massachusetts Horticultural Society has directed its president, Mr. Appleton, to write to the president-elect of the United States desiring him in the selection of a secretary of agriculture in his cabinet to consider the expediency of bringing horticulture and agriculture in close connection.

THE SCALE IN ILLINOIS

S. A. Forbes, Urbana, Ill., state entomologist of Illinois, writes as follows to *Our Horticultural Visitor*, Kinmundy, Ill.:

DEAR SIR :—I beg through your paper to call the attention of all Illinois fruit growers, and particularly of all nurserymen, to the important fact that the San Jose scale, the most dreaded of the scale insects, has been found this fall at three widely separated points in Illinois, viz.: Quincy, Tower Hill, in Shelby county; and Auburn, in Sangamon county. In all these cases the insect was shipped in from eastern nurseries, which became infested several years ago by means of importations from California. Some of these nurserymen have had the courtesy and public spirit to send me lists of their Illinois customers to whom they made shipments at a time when their premises were more or less infested by this scale. Such shipments thus far reported number 159, sent to not less than 118 Illinois localities.

I have undertaken to inspect as rapidly as practicable all lots of stock so received, with a view to locating all actually infested, and to giving all needed advice and assistance for the extermination of this pest. This is necessarily a tedious process, involving several thousand miles of travel and a considerable expenditure of time. Much of this can be saved if those who have received nursery stock since 1887 from New Jersey, Pennsylvania, Long Island, Maryland, Waycross (Ga.), Cambridge, (Mass.), Florida, or Idaho, will carefully examine these trees for scale insects and will report the result to my office. If such insects are found, infested twigs or clippings of bark should be sent to me for examination, since the San Jose scale cannot be distinguished with certainty from other less injurious forms by the uninstructed observer.

All the ordinary fruit trees are liable to invasion by this insect, as are raspberries, blackberries, currants, gooseberries, and the Osage orange.

By prompt and general action, careful inspection and conscientious report of the facts, there is a very considerable probability that the spread of this scale may be stopped where it is, or that it may even yet be exterminated in this state. Fortunately, several of the nurseries of the East by which it was unwittingly distributed far and wide some years ago have since been thoroughly cleared of it, as is testified by statements of the official entomologists of their state. Furthermore, the normal spread of the scale from an infested point is commonly very slow, and in all cases which have thus far been detected in Illinois, only the original trees infested and their immediate neighbors in the same street are now visibly invaded by this scale.

Instructions as to methods of destruction and extermination will be given, either in person or by letter to all on whose premises the scale proves to be present.

ECONOMIC ENTOMOLOGY.

The year 1896 is notable for the advance in knowledge of economic entomology. The attacks of insects upon fruits and crops of orchards and fields, which have caused great losses for years made necessary the adoption of methods of a very practical kind for their suppression. To this end the United States Department of Agriculture and the experiment stations

issued many bulletins; horticulturists hastened to give in lectures and in published articles the results of their experience, and the necessity of the day brought forth divers forms of spraying machines and recipes for deadly mixtures.

What was needed, however, was a volume compiling general information upon the subject of economic entomology, and this has been supplied by Dr. John B. Smith, professor of entomology in Rutgers college, just published by the Lippincott Company, Philadelphia. Some time ago we called attention to the admirable work by Professor John Henry Comstock, of Cornell university, entitled "A Manual for the Study of Insects" which was the first general work including analytical keys to all the orders and families, although excellent treatises on particular groups of insects had been published. The works of Professor Comstock and Dr. Smith are upon much the same plan. Each is a most important addition to the literature upon subjects connected with horticulture.

Dr. Smith's work comprises precisely the kind of information needed by those for whom it was written. Progressive horticulturists have demanded just such a book. The author in his preface says: "In this book an attempt is made to present these [entomological] matters completely enough to give a foundation upon which further information may be added; for whatever changes may occur in our battery of insecticides, the philosophy of their application will remain the same. To do this it is necessary to give an outline of the characteristics of insects generally; of those features that distinguish them from all other animals, and of those peculiarities upon which we must base our hope of conquering them. Enough of the structure is described to show how they are built up, and all the different orders are referred to, so that the intelligent reader may recognize at least the group to which a specimen belongs and may be able to determine whether an injurious species is at hand. The direct needs of the agriculturist have been kept constantly in mind."

It will thus be seen that the work is especially practical and this fact will be its greatest commendation. In these closing days of the nineteenth century horticulturists as well as members of all other classes feel the need of thoroughly posting themselves on the details of their occupation, in order to meet the competition which results from the marked changes in methods due to unprecedented activity and enterprise. The mutterings regarding the Maryland insect law are thought to be but the beginning of a movement which will prove of vital interest to the nursery trade and all nurserymen should be prepared to discuss the subject intelligently.

It is to their professional friends that the horticulturists of the country must turn at this time. Dr. Smith is one of many whose investigations have been of incalculable benefit to the nurseryman and horticulturist. His book is divided into three parts, the first of which briefly describes the physiology of insects; the second is a systematic treatise on insects in which their characteristic forms are classified and their habits described; the third part is devoted to insecticides, preventives and machinery. The work is amply illustrated in a manner which leaves no room for doubt as to identification of species.

The third annual meeting of the Oklahoma Horticultural Society was held at Perry, O. T., on December 8-10. Among these present was T. V. Munson, of Denison, Texas.

MICHIGAN LAWS.

SEC. 1. That it shall be unlawful for any person to keep any peach, almond, apricot, plum, prune, cherry, or nectarine tree, infected with the contagious diseases known as yellows or black knot, or to offer for sale or shipment, or to sell or ship to others any of the fruit thereof; that both tree and fruit so infected shall be subject to destruction as public nuisances, as hereinafter provided, and no damages shall be awarded in any court in the state for entering upon premises and destroying such diseased trees or parts of trees and fruit if done in accordance with the provisions of this act; and it shall be the duty of every person, as soon as he becomes aware of the existence of such disease in any tree, parts of trees, or fruit owned by him, to forthwith destroy or cause said fruit or trees to be destroyed.

SEC. 2. In any township in this state in which such contagious disease exists, or in which there is good reason to believe it exists, or danger may be justly apprehended of its introduction, as such information becomes known to the township board or any member thereof, it shall be the duty of said board to appoint forthwith three competent freeholders of said township as commissioners, who shall hold office during the pleasure of said board, and such order of appointment and of revocation shall be entered at large upon the township records.

SEC. 5. Whenever any person shall refuse or neglect to comply with the order to remove and destroy the tree or parts of trees so designated and marked by the commissioners as aforesaid, it shall become the duty of the commissioners to cause said tree or parts of trees to be removed and destroyed forthwith, employing all necessary aid for that purpose, the expenses for such removal and destruction of trees or parts of trees to be a charge against the township; and for the purpose of said removal and destruction, the said commissioners, their agents, and workmen, shall have the right and power to enter upon any and all premises within their township.

SEC. 6. If any owner neglects to uproot and destroy, or cause to be removed and destroyed as aforesaid, such diseased tree, or parts of trees or fruit, after such examination and notification, and within the time hereinbefore specified, such person shall be deemed guilty of a misdemeanor and punished by a fine not exceeding one hundred dollars, or by imprisonment in the county jail not exceeding three months, or both, in the discretion of the court; and any justice of the peace of the township where such trees may be, or where such nursery stock or fruit is sold, shipped, disposed of, or delivered as aforesaid, shall have jurisdiction thereof. The words "parts of trees," wherever used in this act, shall refer to black knot only, and not to trees affected with yellows.

FREE FROM INSECTS AND DISEASE.

John B. Smith, entomologist to the New Jersey Agricultural College Experiment Station at New Brunswick, N. J., makes this announcement: "I have this 9th day of September, 1896, examined the nursery stock of the West Jersey Nursery Company, Stanton B. Cole, proprietor, grown at Bridgeton, in the county of Cumberland, state of New Jersey, and find no indications of the presence of San Jose scale, peach rosette, yellows, or any other dangerous insects or plant diseases that might be transferred on nursery stock from the nursery to the orchard."

PEACH GROWING IN MARYLAND.

WESLEY, MD, Dec. 14.—A member of the firm of William M. Peters' Sons said: "The past fall's business has been as good as we could reasonably expect; sales not as large as last spring; more retail than wholesale; could no doubt have sold more had we accepted cut prices. We anticipate a better demand for peach in the spring, both in a wholesale and retail way. While prices have ruled low for several seasons, we have increased our stock of peach especially for fall 1897, by budding over one million fine seedlings, in anticipation of a revival in business generally. As we give the growing of our stock our personal attention, it has kept us very closely confined at home, and we have paid but little attention to what was going on away from home.

"The law passed by our last legislature we knew nothing of until we saw it mentioned in THE NATIONAL NURSERYMAN. I admit it was a surprise, while I notice it has been condemned by some nurserymen outside of our state. I am personally acquainted with the gentleman who was, no doubt, at the front in the matter, and I must say, that had I suffered as I know he has, I would have done the same thing. A visit to his place by any practical fruit grower or nurseryman will explain the necessity of such a law.

"We of course had to stand a thorough examination and infection by our state entomologist, Professor W. G. Johnson. I must say he is thorough and understands his duty. After doing his duty, as the law demands, at our nursery, he wrote us a very nice letter complimenting us in many ways and gave us a certificate of inspection, a copy of which has to go with every shipment. We are in a section free from any disease or any scale of every kind that Mr. Johnson could detect. He advised us to be careful that we did not import disease from other sections through buds or scions for propagating. We attribute our success so far to the quality of soil selected as far as disease is concerned; and, further, by growing peach but once on the same land. Having 1,500 acres of our own we are not compelled to grow twice on same land. Besides, we have had an experience of more than 30 years in growing peach especially. The professor, I think, got some points while here. Preparation of soil, selection and application of commercial fertilizer have much to do with a fine healthy growth of trees and it can not all be learned in a few years."

The Ohio Horticultural Society held its annual meeting at Athens December 2, 3 and 4. General C. H. Grosvenor, in a short address, welcomed the visitors. A response was made by E. H. Cushman, of Euclid, president of the society.

At the recent meeting of the Southeastern Iowa Horticultural Society a committee was appointed to consider the introduction of the study of horticulture in the public schools.

WORTH MANY TIMES ITS COST.

F. F. BEARDSLEY & CO., CHARLES CITY, Ia.:—"As you have kindly sent me two or three copies of your most valuable journal, I will now enclose a draft for one year's subscription, as I have concluded that the information gained from reading THE NATIONAL NURSERYMAN is of more value than many dollars to any one engaged in the nursery or fruit growing business. Our trade is improving and we expect a good business this coming season."

Recent Publications.

In Cornell University station bulletin 121 Professor Bailey discusses, in an interesting and instructive manner, suggestions for the planting of shrubbery. Handsome photo-engravings make the points clear.

The Griffing Brothers, Macclenny, Fla., have issued a catalogue for 1897 which is thoroughly up to date. It is an attractive book of 32 pages, entitled "What to Plant and How to Plant It." It is handsomely and convincingly illustrated with original photo engravings and attests in all its features the progressiveness of the proprietors of the Pomona Nurseries.

Part I, of the transactions of the Massachusetts Horticultural Society for 1896 has been issued by the secretary, Robert Manning, Boston. Among the subjects ably discussed are: "Seed Control," by Gilbert H. Hicks, Division of Botany, Washington; "Some Scale Insects," by L. O. Howard, Division of Entomology, Washington; "Ornamental Planting for Parks," by William S. Egerton, superintendent of parks, Albany, N. Y.

"Root Grafts and Seedlings" is the subject of as attractive a "catalogue" as we have seen this season. Indeed it is rather a brochure on the subject. It describes in an excellent manner the operation of growing apple seedlings as practiced by that well-known firm F. W. Watson & Co., Topeka, Kan. It is terse and interesting and illustrated aptly with photo-engravings. It touches a subject in which all nurserymen are interested.

From Lisbon, Portugal, comes an interesting brochure on the culture of the chrysanthemum by H. Cayeux, chief gardener of the Polytechnical School of Lisbon. Mr. Cayeux has treated the subject from the point of view of a scholar and an expert. His little book is concise and yet complete in its description of the characteristics and the methods of culture in general and in special cases of la grande fleur. A list of varieties is given and the book is valuable as showing the Portuguese view of this popular flower.

The new catalogue of the Monroe Nursery, I. E. Ilgenfritz' Sons, Monroe, Mich., is fully up to the modern standard. It is a pleasure to note the evidence of taste and care with which this catalogue has been prepared. The subject matter is well arranged and the frequent illustrations in half tone acquaint the reader almost as well as would a visit, with the entire plant. Exterior and interior views of this immense establishment are shown together with photo-engravings of the members of the firm. The Messrs. Ilgenfritz have reason to be proud of the book.

One cannot pick up the catalogue of William Fell & Co., Hexham, England, without being impressed instantly with the fact that it represents one of the largest nurseries in the world. Established upwards of a century under the patronage of the aristocracy of the British Isles, known far and wide as the home of the choicest varieties of fruit and ornamental stock, the establishment of William Fell & Co., nurserymen, seedsmen, florists and landscape gardeners, bear indeed an enviable reputation. The catalogue of this firm is a hand book of English nursery stock. It will be kept in sight by Mr. Fell's many friends on this side of the water, all of whom are looking forward to meeting him at the June meeting of the American Association of which he has long been a member.

"The Bamboo Garden," by A. B. Freeman-Mitford, C. B., author of "Tales of Old Japan" is one of the most attractive of new books on landscape effects. It is a compilation and extension of articles by Mr. Freeman-Mitford in *Garden* which attracted much attention. The descriptions of species have been almost entirely rewritten. The author acknowledges the assistance of Sir Joseph Hooker, Thistleton Dyer, the director of Kew gardens; and Messrs. Nicholson, Watson and Bean of Kew gardens. The consensus of opinion of these experts gives the book the weight of the highest authority. In addition the author has received accounts of the experiences of the chief growers of bamboos in England and he has not hesitated to draw largely upon the French and English classics on the subject by Riviere and Munro. A chief attraction of the book is the illustrative work by Alfred Parsons whose life-long devotion to the portraiture of plant life found a new scope in the flora and landscape of Japan of which his transcripts by pen and

pencil have charmed the reading and the artist world of England and America. The publishers have done their work exceedingly well. The letter press is beautiful. Bound in white buckram, gilt-edged and marked, the volume does credit to author, illustrator and publisher. 8vo. pp. 224, \$3. New York and London: The Macmillan Co.

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Superior quality, careful grading. Send us your want list or come
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Apple, Cherry, Peach, Plum, Apricot, &c., Ready for Fall, 1896.

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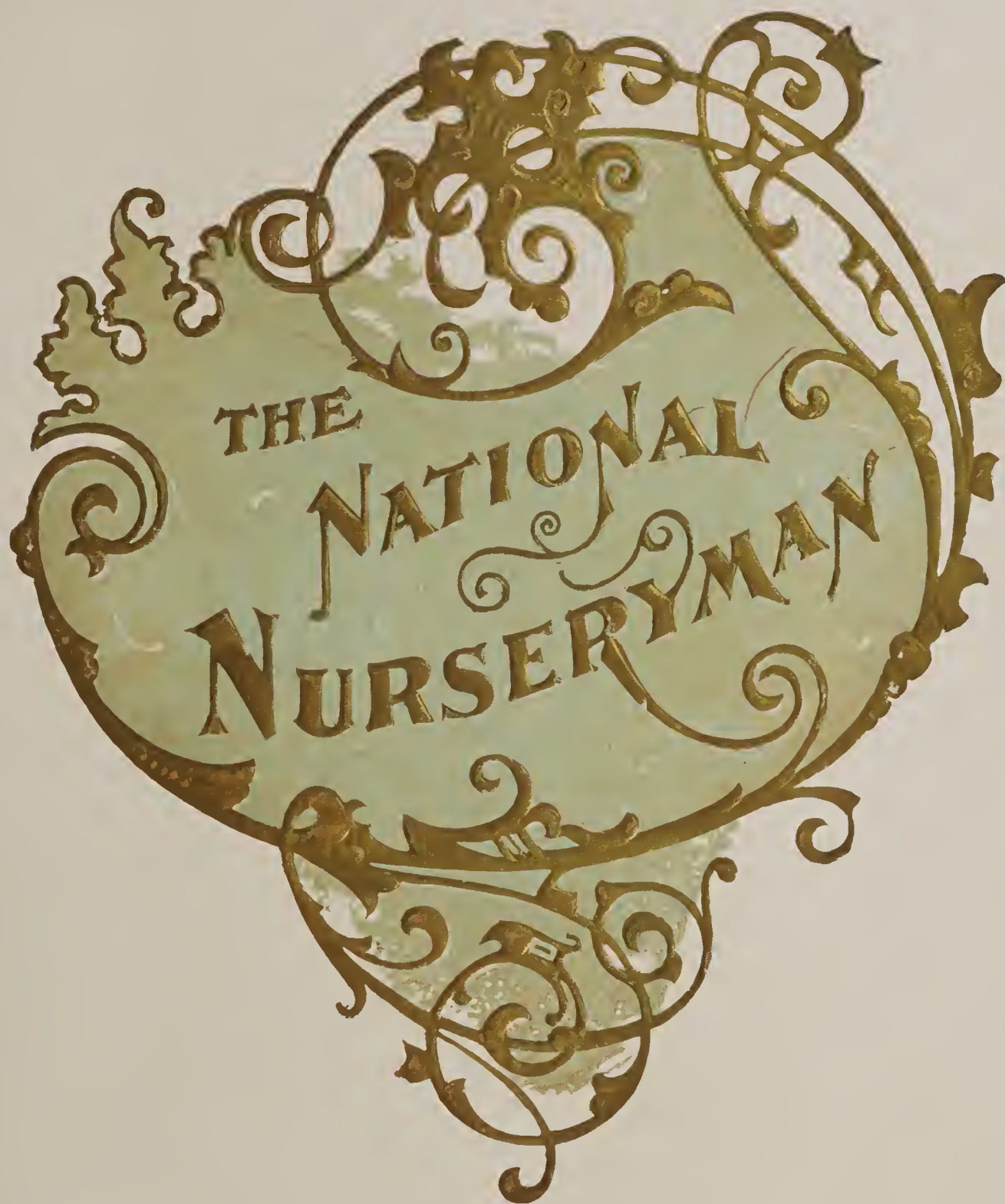
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4/2



March, 1896.

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All young thrifty stock, carefully grown and graded to the highest standard.

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Especially fine Standard and Dwarf Pear, Peach, Plum, Cherry, Quince, Apricot, &c.

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Large stock leading old and new varieties. Gooseberries, Currants, Blackberries, Dewberries, Raspberries, &c, grown from pure stock, graded and handled right.

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Of all kinds, handsome blocks of well grown trees Deciduous and Evergreen, upright and weeping. Largest and finest lot of Carolina Poplars on the market. Splendid stock of Silver, Norway Schwedlerii and Ash leaf Maples, European and Cut leaf Birch, Catalpas, Lindens, Horse Chestnuts, Flowering Thorns, Tulips, Willows, &c.



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INDUSTRY.

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A splendid stock of well-grown plants in large assortment of varieties

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29 GREENHOUSES.

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DUCHESSE PEARS, Dwarf.
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RASPBERRIES, Golden Queen, Superlative (new) Red.
ELM, American, 8 to 10 ft.
HORSE CHESTNUT, White-flowered, 6 to 7 ft., and 7 to 8 ft.
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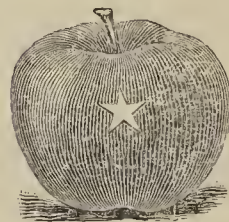
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Parry's Giant, 4 to 6 inches around; the largest known
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10,000 Eleagnus Longipes; 5,000 Matrimony Vines; 25,000 Trifoliate
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15,000 Imported Dwarf Rocky Mountain Cherry, 1 and 2 year.

10,000 Childs' Tree Blackberry—green plants, pot-grown.

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APRICOT Both Russian and American sorts.

GOOSEBERRIES—A fair supply of Downings, Houghtons, and Champions, two years, No. 1.

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ASPARAGUS AND PIEPLANT.

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By the 1,000 or Car-Load, in all the Standard Varieties, including the new of merit.
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50 other kinds

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150m good plants

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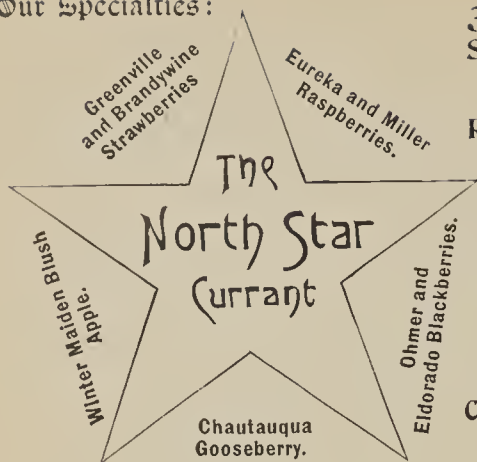
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Strawberry Plants.

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150,000 Peach Trees, 1 year old, from bud, grades 4 to 6 feet, and 3½ to 4 feet.

30,000 " " June budded, 1 foot and up, leading varieties.

10,000 " " " less than 1 foot, popular mailing size.

5,000 Carolina Poplars, 10 to 12 feet.

2,000 Sugar and Norway Maples, 8 to 9 feet.

5,000 Asparagus Roots, 1 and 2 years old, Palmetto, Barr's and Conover's.

One Million Strawberry Plants, 500,000 of them Lady Thompson.

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We have a choice lot of
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TREES

on which we will quote moderate prices for No. 1
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Asparagus Roots. COLUMBIAN, MAM. WHITE, BARK'S MAMMOTH.
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Budded Apples, Standard and Dwarf Pears.
Plums, Cherries, Peaches, Quinces,
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Kilmarnock Willow, Maple in variety, Mountain Ash,
Camperdown Elm, American Elm, Cut Leaved Birch,
Linden, Evergreens, English and Black Walnut,
Kentucky Coffee Trees, Magnolias, Poplars.

**Extra Sized Shrubs and Vines, Strong Budded
 Roses.**

Berberry, Hydrangea, Syringa, Deutzia, Wegelia,
Lilac, American Ivy, Wistaria, Honeysuckle,

and a long list of other trees and plants, all well and carefully grown.

**Holstein-Friesian Cattle, Carriage, Coach and Driving
 Horses, of the best breeding and quality, for sale at reasonable
 prices.**

SMITHS & POWELL CO., SYRACUSE, N. Y.

When writing to Advertisers mention the National Nurseryman.

"WICKSON" Japan Plum.

GRAFTING Wood at reduced
 rates this Spring.

Burbank's Experiment Farms,
 SANTA ROSA, CALIF.

TREES AND PLANTS WHOLESALE
 and RETAIL.

200,000 PEACH TREES,
2,000,000 STRAWBERRY PLANTS,
100,000 BLACKBERRY,
500,000 RASPBERRY.

Ideal, Oriole and Lady Thompson Strawberry,
Miller, Loudon, Cuthbert, Columbian Raspberries,
Eldorado, Maxwell, Leader Blackberries.

All the old and new varieties, fine stock, low prices. Our catalogue free will save you money.

MYER & SON, - Bridgeville, Del.

**TEN ACRES OF THE
 WONDERFULLY
 POPULAR Greenville Strawberry**

(Grown by the originator and introducer.)

30,000 Trees of Downing's Winter Maiden Blush Apple
 Like its parent, Fall Maiden Blush, but keeps all winter.
 We are growing these specialties for the trade and are prepared to render the
 best of service. For terms, plates, &c., apply to

E. M. BUECHLY, - - GREENVILLE, OHIO.

Star Nurseries, Quincy, Ills.

GUSTAV KLARNER, Proprietor.

Offers for Fall, '95, 10,000 Cherry.
 or Spring, '96,

Strictly first-class Stock. Correspondence solicited.
 Write for price to

GUSTAV KLARNER, - - - QUINCY, ILLS.

HAVE YOU SEEN OUR

Wired Printed Tree Labels?

They are universally commended by all of our customers.

ALSO PLAIN OR PAINTED POT LABELS FOR FLORISTS.
 Write me for Prices.

BENJAMIN CHASE, Derry, N. H.

The Sedgwick Nursery Co. **SEDGWICK,**
- KANSAS.

Successor to CHAUNCEY A. SEAMAN.

Offers to the Wholesale trade for the Season of '95 and '96

100,000 APPLE, 2 and 3 yr. 5,000 Europ. and Jap. PLUMS.
100,000 SHADE TREES, large and small. 10,000 DWARF JUNE BERRIES,
5,000 CRANDALL CURRANTS.

All as fine as ever grew. Wholesale Price List for Fall ready July 15th. Special quotations on large lots. **CORRESPONDENCE SOLICITED.**

When writing to Advertisers mention the National Nurseryman.

Rocky Mountain Conifers



Are acknowledged to be the most valuable
And beautiful of all Evergreens,
Either Native or Foreign.

Then why not secure a stock of them for your future trade?

**Picea Pungens, Abies Concolor, Englemanni,
Douglas Spruce, Pinus Ponderosa,**

both transplanted and seedlings. I guarantee them true to name. Much of the seed from which these trees are grown was collected under my personal supervision.

Other Hardy Evergreens

in large supply and any size desired. I have several millions to offer this Spring, such as Norway and White Spruces; Scotch, Austrian, White and Dwarf Pines, Arbor Vitae, Balsam Fir, Red Cedar, &c.

Write for Estimates and Prices.

**D. HILL, Evergreen Specialist,
DUNDEE, ILLINOIS.**

1851. Knox Nurseries. 1896.

We offer for Spring '96 the following Apple, Cherry, etc. Clean and healthy, good roots and tops, strictly first-class.

APPLE, 2 Year, 3-4 and up, 5 to 6 ft.—16,000 Ben Davis, also Akin, Benoni, Aut. Strawberry, Buckingham, Gano, Grimes, Lauver, M. B. Twig, M. Blush, Sops of Wine and Walbridge in smaller quantities. Plenty of smaller grades also.

APPLE, 3 Year, 3-4 and up, 5 to 7 ft.—20,000 Ben Davis, also Akin, Ark, Black, Benoni, Grimes, Jonathan, M. B. Twig, M. Blush, Pewaukee, Wine Sap and Walbridge in smaller numbers.

APPLE, 2 Year, 5-8 to 3-4, 5 to 6 ft.—Very cheap. Good assortment.

CHERRY, 2 Year, 3-4 and up.—3,000 Ea. Richmond.

BLACKBERRIES. Snyder, root cuttings, 20,000.

Send us a list of wants. We will not be undersold.

H. M. Simpson & Sons, Vincennes, Ind.



A SPRAYER!

Best and Cheapest on the market.

SPRAYS TREES, PLANTS, VINES, ETC.

AMONG so many advertisements it may be hard to choose, but if you will write me I will convince you that I have the best and fastest selling Sprayer in the market, and that you can make more money selling them than on any other article in the list of advertisements. Try me and see.

H. B. RUSLER, Johnstown, Ohio.

Woodlawn Nurseries,

ROCHESTER, N. Y.

ALLEN L. WOOD, Prop.

WHOLESALE ONLY.

GROWER OF

Small Fruit Plants for Nurserymen and Dealers.

We offer for the Spring of '96, the largest and most complete collection in the United States of high grade small Fruit Plants for Nurserymen and Dealers. Special attention is directed to the following Raspberries in large quantities:

Transplants and strong Suckers.

Cuthbert, Caroline, Brandywine, Brinkle Orange, Golden Queen, Herstine, Marlboro, Rancocas, Thompson's Early Prolific. Also an immense lot Columbia, Doolittle, Gregg, Johnson's Sweet, Kansas, Lovett, Mammoth Cluster, Ohio, Palmer, Souhegan, Shaffer's Colossal and Tyler, of extra heavy tips for Spring.

Blackberries, root cuttings.

A large lot of Agawam, Ancient Briton, Early Harvest, Erie, Eldorado, Kittatiny, Lawton, Lueretia Dewberry, Minnewaski, Taylor, Snyder, Wachusett, Wilsou Early and Wilson Jr.

Currants, 1 and 2 yrs.; extra fine plants,

of the following: Blk. Naples, Cherry, Blk. Champion, Red Dutch, Fay's Pro., La Versailles, North Star, Lee's Pro., White Grape, Victoria, and Prince Albert.

Gooseberries, 2 yrs.; extra fine plants.

Pearl (New), Downing, Houghton, Red Jacket, Industry, Keepsake.

Strawberries.

Millions of Plants of all the leading kinds, all from new beds.

Asparagus, 2 year Roots.

Millions of the following varieties: Conover's Colossal, Palmetto and Elmira.

Rhubarb, 100,000 Myatt and Victoria.

Extra fine plants. Also large stock 2 yrs. Grape Vines of all the leading kinds.

For miscellaneous stock look at Wholesale Price List for Spring, ready February 1st. Free

Victoria Currants.

Extra fine 2 year plants **very cheap.**

Please write us for prices, stating quantity required.

Address

JOS. HARRIS CO., Moreton Farm P. O., Monroe Co., N.Y.

R. H. BLAIR & CO., Office Northwest cor. 11th & Walnut Sts.
KANSAS CITY, MO.

Proprietors of Lee's Summit Nurseries.

Established in 1866 by Blair Bros.

Wholesale and Retail.

**STRICTLY No. 1 APPLE TREES BY CAR LOT, AND
RUSSIAN AND AMERICAN APRICOTS AND NATIVE PLUM.
ROSES, ORNAMENTAL AND SHADE TREES.**

Prices Low. No better shipping facilities. We are not surpassed by any in the West in number of acres or quality of stock. We have the only practical Box Clamp in use. Price reduced.

HEADQUARTERS FOR

CLEMATIS PANICULATA, in extra heavy grades.

HARDY PERENNIALS, in greatest variety.

LIGUSTRUM IBOTA, the New Hardy Hedge Plant.

HEAVY WHOLESALE BLOCKS of Lonicera Morrowii, Forsythia suspensa, Amorphia fruticosa, Golden Russian Willow, Etc.

Special Quotations at any time.

The Reading Nursery, JACOB W. MANNING, Proprietor,
READING, MASS.

**PEAR.
PLUM.**

Gooseberries—Currants
Large Stock. Low Rates.
E. MOODY & SONS,
Niagara Nurseries.
Established 1839.
LOCKPORT, N. Y.

**PEACH.
CHERRY.**

1865.

1896.

JOHN CHARLTON, University Avenue Nurseries,

ROCHESTER, N. Y.,

Grower of

Pears, Plums, Apples, Cherries, Quinces.

ORNAMENTALS.—Cut-leaf Weeping Birch XX., Purple Beech, Purple Birch, Oak leaf Mountain Ash, Weeping Mountain Ash, Weeping Willows, Maples, Poplars, &c., &c.

CLEMATIS, 2 year, strong NURSERY GROWN plants, now in cellar, can be shipped any time. Home grown are much superior to imported *drospicul* "Holland" plants. I have in large quantities, Coccinea, Crispa, Henryii, Jackmanii, Paniculata, Ramona, and the WONDERFULLY FINE NEW CRIMSON VARIETY, MAD. ED. ANDRE.

ROSES in assortment. A large lot, finest kinds.

SHRUBS.—A choice collection. Elegant plants.

TREE PAEONIES, and Herbaceous. Premier collection of Western New York.

CURRENTS, 2 yrs, Cherry, Fay's, Prince Albert, North Star, and White Grape.

GOOSEBERRIES.—I have in cellar many thousand extra fine 2 year Downing's, also fine 1 year do.; these are superior for retailing. Also, extra strong Industry, 2 and 3 years selected; Keepsake, 3 years; Whitesmith, selected, 2 years.

GRAPE VINES.—Diamond, Eaton, Moore's Early, Niagara Rogers Nos., Worden, &c., &c.

I am one of the oldest growers in the trade.

Columbian Raspberry,

The greatest Raspberry introduction for years.

I am SPECIAL AGENT at Mr. Thompson's prices to the trade.

Descriptive Circulars and Colored Plates now ready.

CLEMATIS, in varieties, mostly Jackmanni.

RHODODENDRONS, hardy hybrids, Catawbiense grandiflora.

Hardy Azaleas, Tree Paeonia, Chinese Paeonia.

ROSES, H. P., budded and own roots, Climbing, Moss, Tree Roses; Hypericum Moserianum, Evergreens, Blue Spruce, etc., etc.

Now in stock, inspection cordially solicited. Quotations given, f. o. b. N. Y.

L. C. BOBBINK, Rutherford, N. J.

Branch of the Horticultural Company, Boskoop, HOLLAND.

WANTED!.....

100 Pin Oaks, 8 to 12 feet.

100 White Oaks, 8 to 10 feet.

ANDORRA NURSERIES,
CHESTNUT HILL, PHILADELPHIA, PA.
WM. WARNER HARPER, Manager.

IMPORTED STOCKS NOW READY For Shipment.

FRUIT TREE STOCKS AND ORNAMENTALS.

New Lilacs—18 to 24 inches, strong well rooted plants from cuttings. RENOCULE, VIRGINITE, ROUGEDE, TRIANON and SENATEUR VOLLARD.

Altheas—2½ to 3 feet, VERY STOCKY, CHEAP, also smaller sizes for TRANSPLANTING.

Hydrangea P. G.—For transplanting; 3 year X.

Pear—Stocks extra and medium grade.

Mahaleb Cherry—Extra; No. 1 and medium grade.

Myrobolan Plums—Extra; No. 1 and medium grade.

Mazzard Cherry—Extra grade.

Angers Quince—EXTRA and medium grade.

Also a full line of well grown NURSERY STOCK.

Apple Seedlings—Home grown; No. 1; branched roots for budding.
Picea Pungens—(COLORADO BLUE SPRUCE), 12 to 15 inch. Fine plants.

ADDRESS, **WILEY & CO.,**

Cayuga Nurseries.

CAYUGA, N. Y.

When writing to advertisers mention The National Nurseryman.

T. C. WILSON,

ESTABLISHED 1855.

East Side Nurseries, = = Brighton, N. Y.

I have to offer for Fall, 1895, the following strictly first-class stock:

75,000 APPLE TREES,	25,000 STANDARD PEARS,
10,000 DWARF PEARS,	15,000 PLUM TREES,
15,000 CHERRY TREES.	10,000 PEACH TREES.

ALSO A FINE ASSORTMENT OF

Quince Bushes, Currant Bushes, Gooseberries, Ornamental and Shade Trees,

Tree Roses, H. P. Roses, Shrubs and Vines.

Write and get my prices before ordering elsewhere.

WILLOWDALE NURSERIES.

We offer for spring of 1896 a general assortment of Nursery stock, including:

200,000 Barr's Mammoth Asparagus, two year.

125,000 Osage Orange, one and two year.

Apple and Peach Trees, in earload lots.

Standard Pears, largely of Bartlett, Clapp's Favorite, Kieffer and Idaho.

Abundance and Burbank Plum.

Also a fine lot of Ornamental Shade Trees, in large quantities.

SEND LIST OF WANTS.

ADDRESS, **RAKESTRAW & PYLE,**

WILLOWDALE, Chester Co., Pa.

Evergreen Nurseries,

EVERGREEN, DOOR CO., WIS.

EVERGREEN NURSERY CO., Proprietors.

(Successors to GEO. PINNEY.)



Evergreens a Specialty,

IN GREAT VARIETY,
AND LARGE NUMBERS.

Also a fine stock of

DECIDUOUS,
ORNAMENTAL, and
SHADE TREES.

Prices the Lowest! Stock Warranted to be Good!

Complete Price List FREE.

For large orders send list of wants for special low prices.

SURPLUS STOCK of Scotch Pine, 4 to 6 feet; and Norway Spruce, 1 to 2 feet, at EXTREMELY LOW PRICES.

Tree Seeds of American Mountain Ash; American Black, Yellow, White and Paper Birch; American Arbor Vitæ, White Pine and White Spruce. Send for prices.

When writing to advertisers mention The National Nurseryman.

W. T. HOOD & CO.,

Old Dominion Nurseries—350 acres.

PEACH, (including Crosby, Champion, Sneed) }
STANDARD PEAR, } In
APPLE, } Large Stock.

A FULL LINE OF GENERAL NURSERY STOCK.

NATURAL PEACH SEED.

Very large packing sheds. Cold storage barn. The best facilities for proper packing, and prompt shipping.

W. T. HOOD & CO., - - RICHMOND, VA.



PEAR TREES!

Both Standard and Dwarf,
in great

SURPLUS.

Will accept some PLUM,
CHERRY and PEACH
in Exchange.

Trade Prices and Descriptive
Catalogue Free.

LEWIS ROESCH,
FREDONIA, N. Y.

For Spring, we offer:

Strawberry Plants.

Brandywine	20,000	Haverland (P).....	500,000
Bisel (P)	2,000	Ivanhoe.....	5,000
Beele (P)	2,000	Lovett.....	200,000
Berlin (P).....	50,000	Lady Thompson.....	500,000
Beeder Wood.....	200,000	Marshall.....	5,000
Barton's Eclipse (P)	500,000	Meek's Early.....	50,000
Boynton (P).....	200,000	Mitchel's Early.....	200,000
Bubach No. 5 (P).....	500,000	Mrs. Cleveland (P)	200,000
Beverly	10,000	Muskingum.....	5,000
Cyclone.....	10,000	Parker Earle.....	100,000
Columbian.....	5,000	Phillips' Seedling.....	50,000
Chairs.....	15,000	Rio.....	5,000
Cumberland.....	15,000	Saunders.....	200,000
Crescent (P)	500,000	Sharpless.....	300,000
Dayton.....	100,000	Swindle (P).....	100,000
ENORMOUS (P)	10,000	Southard.....	10,000
E. P. Roe.....	10,000	Stayman's No. 1 (P).....	50,000
Enhance.....	300,000	Splendid.....	10,000
Eureka (P).....	100,000	Tennessee Prolific.....	200,000
Gandy (Late).....	100,000	Timbrell (P).....	10,000
Greenville (P).....	500,000	Van Deman.....	25,000
Gov. Hoard.....	10,000	Warfield No. 2 (P).....	500,000
Gen. Putman (P).....	10,000	Wolverton.....	50,000
Hoffman.....	100,000	Wilson.....	50,000

900,000 Asparagus Roots,

Donald's, Elmira, Palmetto, Barr's and Conover

100,000 Peach Trees,

Including Elberta, Crosby and Champion.

100,000 Blackberry Plants,

WILSON and EARLY HARVEST.

Special quotations on application. Send your List of Wants.

J. G. HARRISON & SONS,
BERLIN, MD.

When writing to advertisers mention the National Nurseryman.

RED JUNE, the Coming Japan Plum.—After fruiting it four seasons, Red June proves to be **WORTH MORE** than all the other 20-odd Japs we have fruited put together. Large size, most beautiful red color, good quality, etc. But above and beyond all, very early and very hardy in bud and blossom. Loaded down with magnificent plums in 1895 when Abundance, Burbank, etc., in same orchard were a failure—killed in bud. Ripens so early it also escapes that other twin-enemy of the Japs—the fruit-rot. Ripe June 28; was ready to ship several days earlier; colors perfectly even if picked when just turning; doesn't drop; juicy, of good quality and a delicious canning plum, with, as Pres. Berckmans says, "a Damson flavor." Tree vigorous, very hardy; large orchard trees of Red June and Burbank are perfectly sound and healthy, while

Abundance, Maru, etc., show injury from severe winters, and Satsuma, etc., are badly winter-killed.

Four years ago we said, "Red June seems without doubt the most valuable market plum produced up to this time."

Read "is" for "seems" and you have our present opinion. Nor are we alone. We have many testimonials, but no need to add to these letters—received from the world's greatest three authorities on Japanese plums:



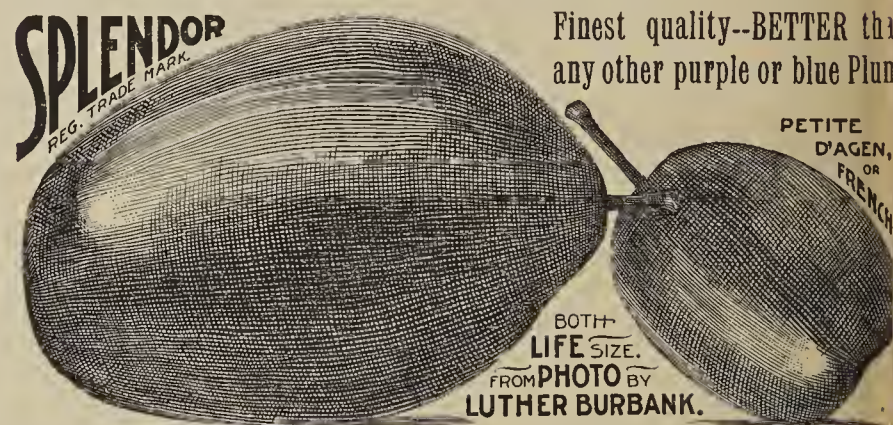
RED JUNE
COPYRIGHT 1895
BY STARK BROS.

LUTHER BURBANK, Cal., July 27, 1895: "Red June fruited well this season with me. It is very large, firm and handsome and the tree a rapid grower. I think it a splendid market plum."

PROF. L. H. BAILEY, Cornell Exp. Station, July 29, 1895: "Red June is just now ripening with us. It is very much superior to Willard and is the best early Jap I have seen." LATER: "We have just finished picking Red June and I am convinced that it is the best Japanese plum tested here next to Burbank." LATER, Prof. Bailey writes us for "Fifty 1-year first-class trees of Red June, FOR MY OWN USE."

PRES'T P. J. BERCKMANS, Ga., Sept. 5, 1895: "There will be a big demand for Red June. I have for four years past advised our orchardists to plant it largely, but without avail; and now everybody asks for it. Mr. Rumph had 15,000 Abundance trees in bearing this year and made a handsome thing out of them, but if he had shipped Red June instead and FULLY 10 TO 15 DAYS EARLIER, the returns would have been even larger."

SPLENDOR
REG. TRADE MARK



Finest quality--BETTER than any other purple or blue Plum

BOTH
LIFE SIZE.
FROM PHOTO BY
LUTHER BURBANK.

SPLENDOR, the Greatest of All Plums of the European Type: We offer to one firm in each State where domestica plums and prunes are grown, the sole right to grow and handle **SPLENDOR, \$3,000.00** prune, under Reg. Trade Mark—write for particulars. Drop a postal for Wholesale, also Trade List—for Wholesale prices are not our Trade prices.

STARK BRO'S Nur. & Orch. CO.

LOUISIANA, MO. ROCKPORT, ILL.

Capital Nurseries,

NORTH TOPEKA, KAN.

PETERS & SKINNER,
Proprietors.

Apple Trees.

A large and fine stock, good assortment, strong on northern sorts.

PEACH, PLUM AND CHERRY TREES.

DOUBLE FLOWERING CRAB,

APPLE SEEDLINGS.

PEAR SEEDLINGS.

Correspondence Solicited.

PETERS & SKINNER.

When writing to advertisers mention The National Nurseryman.

A - - - Great Specialty.

The climate and soil of the Maple Avenue Nurseries, added to the experience gained in a long series of years in growing **Peaches**, induce the proprietors to recommend their stock with the greatest confidence. They grade carefully into three sizes: First-class, First-class Light, and Second-class; either of which will be found entirely healthy and well worthy of attention.

In the line of Ornamental Shrubs and Vines,

A department which receives much care, the proprietors direct attention to the following, of which they have fine blocks to offer the coming spring. **Exochorda Grandiflora, Ornamental Grasses, Prunus Triloba, Viburnum Plicatum, Yucca Filamentosa, Clematis Flammula and Wistaria Frutescens.** The stock is all fine and the prices exceedingly low.

SEND FOR NEW TRADE LIST.

Hoopes, Brother & Thomas,
Maple Avenue Nurseries. WEST CHESTER, PA.
ESTABLISHED 1853.

GRAPE NIAGARA VINES

All old and new varieties. Extra quality. Warranted true. Lowest Rates. Introducers of the **EATON.**
Also other SMALL FRUITS. Descriptive Catalogue Free.
T. S. HUBBARD CO., Fredonia, N. Y.

ESTABLISHED 1852.

Phoenix Nursery Co., 600 Acres. . . .
13 Greenhouses. . . .
(SUCCESSORS TO SIDNEY TUTTLE & CO.)

NURSEYRYMEN AND FLORISTS ♦ Wholesale and Retail.

Correspondence solicited and promptly answered.
Send list of wants for prices. Salesmen wanted.

P. O. BOX 1215.

BLOOMINGTON, ILL.

D. WING & BRO., Rogers, Arkansas,

Offer the trade for season of '95 and '96.

CHOICE APPLE, 2 to 3 years.

PEACH TREES, 1 year.

Our Peach Trees are entirely free of yellows and rosette. Stock first-class and of various grades. Prices given on solicitation.

We especially call attention to **ELBERTA PEACH** and **BEN DAVIS APPLE** in large lots.

NURSEYRYMEN Should read this, I have just what you want. Always in stock, a nice clean article of dry baled **SPAHGNUM MOSS.** No delay or freight charges from branch roads. Orders for less than large car load shipped the first day received.

L. G. THOMPSON,

Write me for easy terms and prices.

TOMAH, WIS

When writing to advertisers mention The National Nurseryman.

Imported Stock.

Fine Condition.

Mahaleb, Myrobolan, Quince, Pear.



APPLE TREES, 2 years, all grades, good assortment.

CHERRY TREES, 2 years, No. 1, *very low.*

KIEFFER PEAR, 2 years, at quick-sale prices.

25,000 ¼-in. Branch APPLE SEEDLINGS,
THAT ARE FINE.

F. W. WATSON & CO.,
TOPEKA, KANSAS.

Andre Leroy Nurseries

ESTABLISHED 1780.

BRAULT & SON, Directors,
ANGERS, FRANCE.

SPECIALTY OF NURSERY STOCK.

AZALEAS, CAMELIAS, RHODODENDRONS,
MAGNOLIAS, LILAC, ETC.

AGENT FOR
UNITED STATES AND CANADA, * * * *

ANDRE L. CAUSSE,

105 and 107 Hudson Street, New York City.

Extra!



FINE STOCK



**Standard
Pears. . . .**

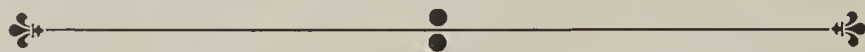
WRITE US FOR PRICES.

I. E. ILGENFRITZ & SONS, Monroe Nursery,
MONROE, MICH.

When writing to advertisers mention The National Nurseryman

OSAGE NURSERIES

OSAGE, IOWA.



Picea Pungens, or the Silver Spruce of Colorado.

This tree has been called the "King of the Spruces" and it is entitled to that distinction. It is found in the deep gorges of the Rocky Mountains, at an altitude generally exceeding eight thousand feet. When nursery grown and planted out, it seems to succeed almost everywhere, from Minnesota to North Carolina, and from the Western Mountains to the Atlantic Ocean.

The leaves are one-half to one inch long, broad, rigid, stout, sharply acute, usually curved, pale green above, silvery glaucous beneath, on smooth and shining branchlets. Cones very abundant, three to five inches long, and grow in clusters in the upper part of the tree. Seed very small, nearly two hundred thousand to the pound.

When these trees are small, and in the seed beds, the leaves are not then so stout and rigid, but they are sharply acute, and thus are easily distinguished from Englemanni, which have a decided awl point.

The seeds which we plant are gathered from the best specimens that can be found in Colorado, and we guarantee all our plants to be genuine *Picea Pungens*.

We have sent samples of our trees to the Department of Agriculture, Washington, for inspection, and the following letter explains itself.

U. S. DEPARTMENT OF AGRICULTURE,
DIVISION OF FORESTRY,
WASHINGTON, D. C., Feb. 14th, 1896.

Mr. Charles F. Gardner, Osage, Iowa.

DEAR SIR:—The specimens of Spruce sent by you are, beyond question, *Picea Pungens*; any one mistaking it for any other spruce, especially Englemanni, is not acquainted with either species. The sharp needle point is absolutely characteristic, while Englemanni has a decided awl point. Also the buds of *pungens* are larger and lighter colored. The needles are somewhat deficient in the usual stiffness, which deficiency is common with young thrifty shoots.

Yours truly,

B. E. FERNOW, Chief.

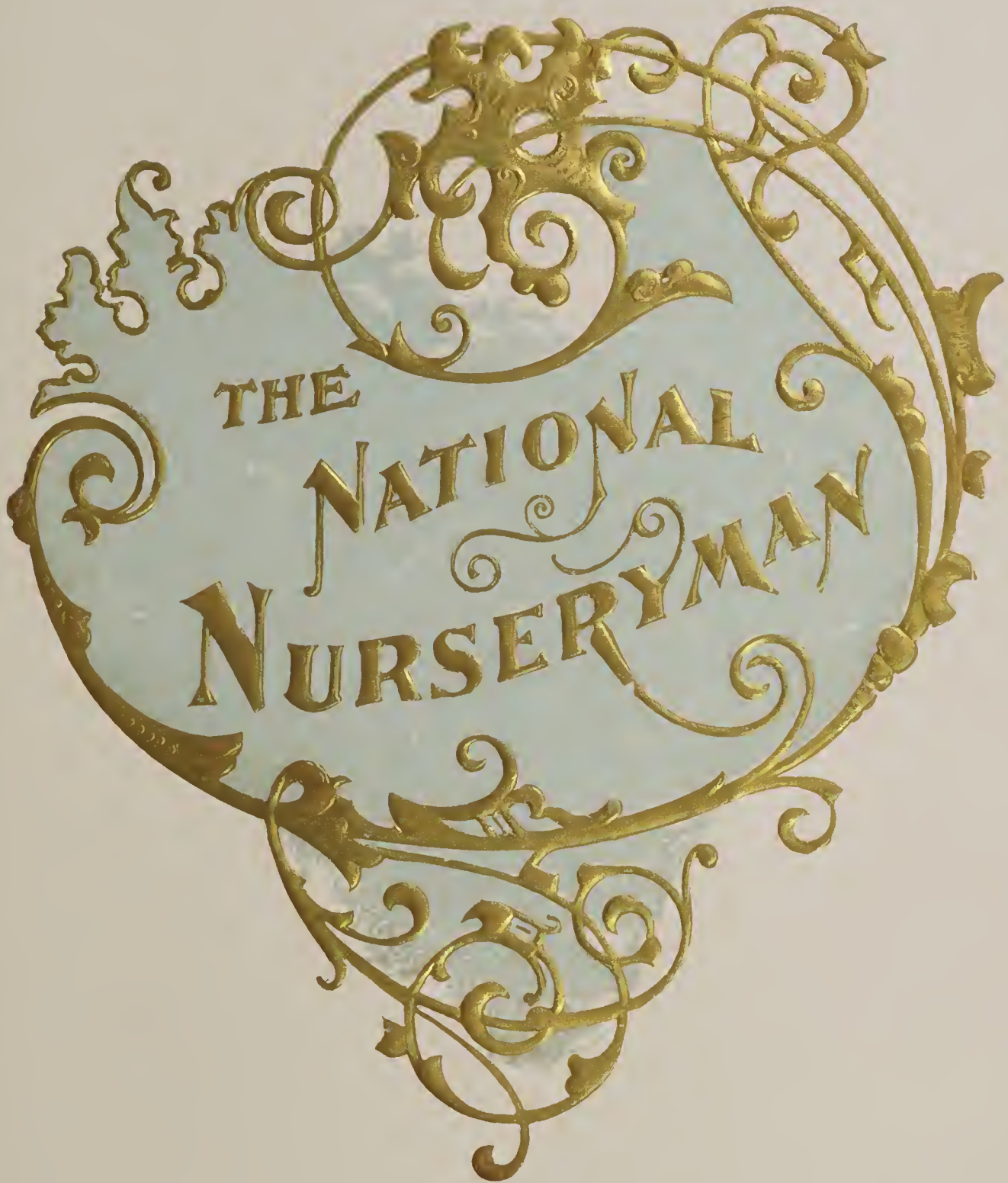
We have had many years experience in growing evergreens from the seed, and can show millions of them growing on our grounds that are as thrifty and vigorous as can be found in any part of the United States. We have the following sizes of *Picea Pungens* to offer to the spring trade: 8 to 12 inches, 6 to 8 inches, 4 to 6 inches, and 2 to 4 inches.

We are the originators of the "Gardner" Strawberry, and are happy to state that we have a large stock on hand of very fine plants that have not been allowed to bear fruit, except for the purpose of inspection, for seven years, thus ensuring the strongest vitality possible.

Write us for Prices.

GARDNER & SON, - Osage, Iowa.

We need a few Apple and Plum Trees for our Spring Trade.



April, 1896.

PAINESVILLE NURSERIES.

Gault Perpetual Raspberry.

A valuable market variety. A perpetual bearer. Ripens a crop of berries at time of Gregg, producing more fruit; continues bearing on young wood until killed by frost,—not a few scattering berries but frequently 80 to 100 on a single tip. Berries fine quality, extra large and firm; plant a vigorous grower, extremely hardy, going uninjured through past winter where many kinds were killed.

Special inducements to large buyers for Spring, 1896.

—CIRCULARS, COLORED PLATES, ETC., AT LOW RATES.

Our usual immense assortment of Fruit and Ornamental Trees,
Grape Vines, Small Fruits, Roses, Shrubs, Bulbs,
Hardy and Tender Plants, Etc.,

All young thrifty stock, carefully grown and graded to the highest standard.

FRUIT TREES

Especially fine Standard and Dwarf Pear, Peach, Plum, Cherry, Quince, Apricot, &c.

SMALL FRUITS

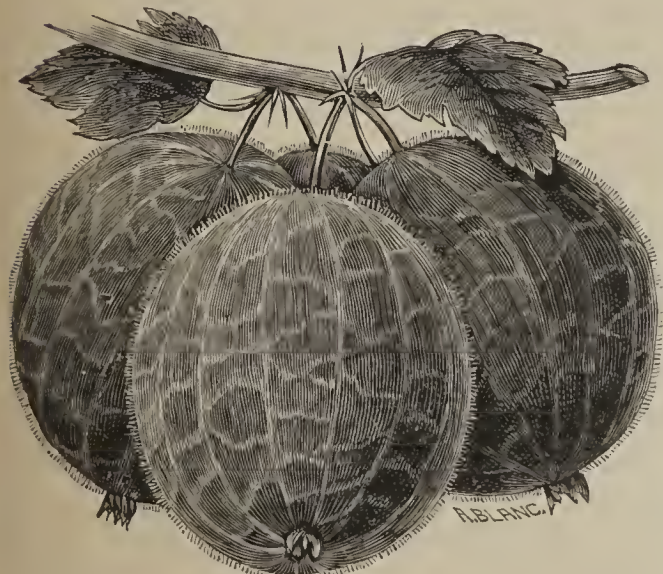
Large stock leading old and new varieties. Gooseberries, Currants, Blackberries, Dewberries, Raspberries, &c., grown from pure stock, graded and handled right.

ORNAMENTALS

Of all kinds, handsome blocks of well grown trees Deciduous and Evergreen, upright and weeping. Largest and finest lot of Carolina Poplars on the market. Splendid stock of Silver, Norway Schwedlerii and Ash leaf Maples, European and Cut leaf Birch, Catalpas, Lindens, Horse Chestnuts, Flowering Thorns, Tulips, Willows, &c.



GAULT RASPBERRY, FROM PHOTO OF CLUSTER
PICKED IN SEPTEMBER.



INDUSTRY.

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A splendid stock of well-grown plants in large assortment of varieties.

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We lead the world in field grown Roses. Immense stock field grown Hybrid Perpetual, Moss, &c., budded low on Manetti. Best plants at lowest rates. Fine block of Holland grown Tree Roses for Fall delivery.

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All the varieties for Fall planting direct from the best French and Holland growers.

Largest, most complete and best equipped cellars and packing houses. Stock stored for Spring delivery when desired. Facilities for prompt and accurate filling of orders are unsurpassed.

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41st YEAR.

1,000 ACRES.

29 GREENHOUSES.

THE STORRS & HARRISON CO.,
PAINESVILLE, OHIO.

"The most complete Nurseries on the American continent."
—American Rural Home.

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MOUNT HOPE NURSERIES,
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ELLWANGER & BARRY, Proprietors.

Leading Specialties

FOR SPRING, 1896.

DUCHESSE PEARS, Dwarf.
CURRENTS, Fay's, La Versaillaise, Victoria.
GOOSEBERRIES, Downing, Industry.
RASPBERRIES, Golden Queen, Superlative (new) Red.
ELM, American, 8 to 10 ft.
HORSE CHESTNUT, White-flowered, 6 to 7 ft., and 7 to 8 ft.
MAPLE, Sugar, 8 to 10 ft.
POPLAR, Lombardy, 8 to 10 ft.
MOUNTAIN ASH, Oak-leaved, 6 to 7 ft.
DEUTZIAS, in variety.
FORSYTHIAS, in variety.
ELÆAGNUS Longipes, the coming shrub.
HONEYSUCKLES, Upright.
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PRUNUS PISSARDI, (Purple-leaved Plum.)
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Hardy Roses, Dormant Plants,
Two Years Old.

Crimson Rambler Rose,
The greatest Rose Novelty of recent years.

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Of a large stock **ASPARAGUS ROOTS**,
2 and 3 year growth, for the next 60
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Varieties, **PALMETTO** and **CONOVER'S**
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Surplus Imported Stock ©

All in prime condition, can be shipped at an hour's notice.

New Lilacs—18 to 24 inches, **STRONG** well rooted plants from cuttings. **RENO-**
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Altheas—2½ to 3 feet, **VERY STOCKY**, **CHEAP**, also smaller sizes for **TRANS-**
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Hydrangea P. G.—For transplanting; 3 year X.

12,000 X X 7-12 1 year Pear Stocks.

25,000 Nice No. 2, 1 year Myb. Plums.

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6,000 No. 1 Mazzard Cherry.

One Box No. 57. Contents 5,600 6-8 M. M., 1 yr. Mahaleb.

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Apple Seedlings, No. 1—3-16 inch and all upon own roots, home grown.
Best quality **Raffia** in small or larger quantity.

Also a full line of **well grown** Nursery stock.

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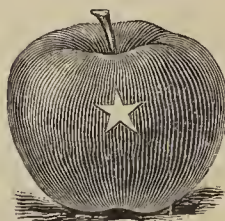
In some varieties of

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Also in Standard and Dwarf Pears, two-year top Plums,
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Roses, Silver Maples and Oak-leaved Mountain Ash.

See list of varieties in March number of **NATIONAL NURSERYMAN**.
Write for prices which correspond with the times.

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Surplus.



PLUMS.—5,000 Willard, Abundance, Spaulding and Lincoln.

PEARS.—5,000 Koonce, Kieffer, Seneca, Lincoln Coreless, Japan
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APPLES.—A heavy stock of standard sorts. A limited supply of
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CHESTNUTS.—Alpha, Opens Sept. 5 to 10, without frost.

Parry's Giant, 4 to 6 inches around; the largest known
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Pedigree Mammoth, Paragon, Gumbo, Ridgeley, &c.

WALNUTS.—French, Persian, Japan and English.

PECANS, **ALMONDS**, **FILBERTS**, **SHELLBARKS**.

NOVELTIES.

10,000 Eleagnus Longipes; 5,000 Matrimony Vines; 25,000 Trifoliate
Orange, 1, 2 and 3 year; 10,000 Japan Wineberry; Japan Mayberries;
Logan (Raspberry-Blackberry); Strawberry-Raspberry.

15,000 Imported Dwarf Rocky Mountain Cherry, 1 and 2 year.

10,000 Childs' Tree Blackberry—green plants, pot-grown.

10,000 Eldorado " " " "

10,000 Lovett's Best " " " "

A heavy stock of **Strawberries**, **Raspberries**, **Blackberries**,
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Shade Trees—**POPLARS** AND **MAPLES**.

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All stock disinfected and free from insect or disease.

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PARRY, - - NEW JERSEY.

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OFFER a very full and complete stock of FRUIT and ORNAMENTAL TREES, and call your attention especially to . . .

APPLE—Good assortment in all grades.

PEAR—Standard and Dwarf, in good assortments in the two upper grades.

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PLUM on Plum, one and two years, European, Japan and American sorts. We are strong on Burbank, Weaver, Wolf, Lombard and German Prune.

PEACH—A very fine lot, mostly of the two upper grades.

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GOOSEBERRIES—A fair supply of Downings, Houghtons, and Champions, two years, No. 1.

FOREST SEEDLINGS—Including Russian Mulberry, Black Locust, Ash and Osage Hedge. Also Maple, 4 to 5 ft., 5 to 6 feet, and 6 to 8 ft.

ASPARAGUS AND PIEPLANT.

For a more complete list, we refer you to our Trade List, and solicit correspondence.



Evergreen Nursery. ^{Sweet Chestnut} SEEDLINGS.

Millions of Evergreens; all sizes, from 2 inches to 2 feet. Large stock.

PUNGENS, CONCOLOR and DOUGLAS SPRUCES from Colorado.

Fine transplanted stock at very low rates.

MOTTO:—Square dealing, no buncombe.

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Meech's
Orange
Champion
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30,000 2-year,
very fine.

Crosby
Champion
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50 other kinds

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125,000 from Natural
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Transparent
Ben Davis
Gano
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150m good plants

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200,000 BARR'S MAMMOTH ASPARAGUS, 3 years.

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Apple, Peach, Plum, Carolina Poplar,
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ALSO A GENERAL ASSORTMENT OF OTHER STOCK, SUCH AS
GOOSEBERRIES, CURRANTS, and other SMALL FRUIT AND
ORNAMENTAL TREES AND PLANTS.

— Complete List of Varieties;

— Stock Young, Thrifty, and of Best Quality;
— Carefully Graded and Handled

Write for SPECIAL PRICES in CAR LOAD LOTS. Personal inspection courted. SPADES—see Trade List.
Trade List ready Sept 1st.

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LARGE
SMALL TREES,

FLOWERING SHRUBS in great variety. Descriptive Catalogue
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SAMUEL C. MOON, Morrisville, Bucks County, Pa.

COMPLETE STOCK. WHOLESALE AND RETAIL.

SHENANDOAH NURSERY Offers to the trade a large stock of

Apple, Cherry, Plum Seedlings,
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Apple,
Cherry,
Plum
SCIONS.

Cherries, Grapes, Shade Trees (large and small), Evergreens, Roses, Etc.
Plum on Plum (Native varieties).

PRICES LOW. Correspondence
solicited.

Address D. S. LAKE, Prop.,
Shenandoah, Iowa.

THE WILLIAM H. MOON CO., MORRISVILLE,
BUCKS CO., PA.,

Offer for Fall, 1895.

- 1,000,000 Asparagus Roots, 2 years old, Palmetto, Barr's and Conover's.
- 5,000 Paragon and Numbo Chestnuts, 1 and 2 years, grafted.
- 20,000 Sugar and Silver-Leaved Maples, 8 to 14 ft.
- 10,000 Carolina Poplars, 8 to 15 ft.
- 2,000 Purple-Leaved Beech
- 50,000 Deciduous Trees of Leading Varieties.
- 500,000 California Privet, 1 and 2 years old, very stocky.
- 100,000 Flowering Shrubs, including a full assortment of leading varieties.
- 10,000 Rosa Wichuriana.
- 20,000 Honeysuckles—Climbing.
- 20,000 Climbing Vines—Assorted
- 30,000 Dahlias—Finest Collection

Special quotations on application. Correspondence with the trade solicited in reference to their wants in the Ornamental Line.

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Offer for Fall '95, and Spring '96,
large stock of the following:

Apple, Peaches, Plum (Japan and others) Apricots, Nectarines, 1-Year Standard Pear (heavy on Kieffer, Garber and Clapp's Favorite), Grape, Asparagus, Strawberries, Osage Orange, Shade Trees, Evergreens, Shrubs, Etc., Etc.

Well-Graded Stock! Prompt Shipment

SATISFACTION GUARANTEED.

Special attention to growing Peach Trees of which we have the usual quantity. We are prepared to give prices to suit the times.

FRANKLIN DAVIS NURSERY CO.,

BALTIMORE, MD

"Southern Natural Peach Pits" in season.

PRICES ON APPLICATION.

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Our Specialties:



3,000,000
Strawberry Plants.

Raspberries.

Forty varieties. No better stock grown. 100,000 transplants of Ohio, Palmer, Hilborn, Gregg, Shaffer, Turner, and Cuthbert.

Blackberries . .

Splendid assortment of well-rooted plants. Transplants of Snyder, Early Harvest, and Lucretia Dewberry.

Currants and Gooseberries.

One and two years old; good; well-graded plants.

Grape Vines, Very Cheap.

RHUBARB, ASPARAGUS, HORSE RADISH, ETC.

Very Respectfully,

W. N. SCARFF,

New Carlisle Ohio.

Write for Prices.

LEVAVASSEUR & SONS NURSERIES,

USSY (CALVADOS) AND ORLEANS, FRANCE.

Largest Growers and Exporters of all kinds of

NURSERY STOCKS TO THE UNITED STATES.

Best Grading Quality and Packing.

Send your List of Wants for Special Prices to

HERMAN BERKHAN, Sole Agent,

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Sole Agent for the United States and Canada.

PEAGNES all the time.

BOKARA, 28° below zero, and a crop.

It's a *Sure Seller*.

For TREES, for BUDS, for CIRCULARS, and a general line of NURSERY STOCK, address

A. C. GRIESA & BRO., Mount Hope Nurseries,
LAWRENCE, KAN.
AGENTS WANTED.

ONE HUNDREDTH SEASON.

LOUIS LEROY'S NURSERIES,

(ESTABLISHED 1795.)

ANGERS (M. & L.) FRANCE.

GROWER AND EXPORTER OF

FRUIT, FOREST AND ORNAMENTAL TREE STOCKS,
CONIFERAE, SHRUBS, ETC.

AZALEAS, CAMELIAS, CLEMATIS LILACS, MAGNOLIAS,
RHODODENDRONS, ROSES, ETC, ETC.

ORDERS NOW BOOKED AT LOW PRICES

SOLE AGENT FOR U. S. AND CANADA,

AUG. RHOTERT,

26 BARCLAY STREET, - - - NEW YORK.

Surplus for Spring, 1896.

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150,000 Peach Trees, 1 year old, from bud, grades 4 to 6 feet, and 3½ to 4 feet.

30,000 " " " " " June budded, 1 foot and up, leading varieties.

10,000 " " " " " less than 1 foot, popular mailing size.

5,000 Carolina Poplars, 10 to 12 feet.

2,000 Sugar and Norway Maples, 8 to 9 feet.

5,000 Asparagus Roots, 1 and 2 years old, Palmetto, Barr's and Conover's.

One Million Strawberry Plants, 500,000 of them Lady Thompson.

Correspondence Solicited

W. M. PETERS' SONS, - Wesley, Md.

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IMMENSE STOCK, LARGE ASSORTMENT.

Correspond with us and get samples and prices before placing your orders. Introducers of the new early black grape, . . .

. . . **EARLY OHIO,** . . .

Ten days earlier than Moore's Early, and three times as productive.

Address, **C. S. CURTICE CO., Portland, N. Y.**

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I AM A BOOKBINDER!

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I don't sell fruit plates nor wooden labels, but I can bind your plate books and folios right and at prices that will suit you. Give me a trial. Write for prices and sample.

HERBERT J. WILSON, Aqueduct Bldg., Rochester, N. Y.

I have 150,000 extra strong one and two year

FAY'S CURRANTS

To offer at REDUCED RATES.

Write for prices, stating quantity wanted.

F. H. BURDETT, Clifton, Monroe Co., N. Y.



Electrotypes and Cuts

OF FRUIT TREES,
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CATALOGUE OF FRUIT AND TREE CUTS FREE.
SEND FOR LIST OF OTHER CATALOGUES. 1000 PAGES.

Engravings of New Fruits made at Low Prices.

A. BLANC, Horticultural Engraver,

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NURSERYMEN.

FLOWER LOVERS.

READ THIS.

Ornamental Trees and Plants at prices to please. Fine Herbaceous Perennials and Trailers in any quantity. Largest orders a specialty.

Catalogues free. Send Wants.

WM. H. HARRISON & SONS, - - Lebanon Springs, N. Y., U. S. A.

We have a choice lot of

Apple Pear,
Plum and Cherry



TREES

on which we will quote moderate prices for No. 1
Stock. Car lots or less.

See Wholesale List for Prices on Grape Vines and Small Fruits.

W. A. WATSON & CO., - Normal, Ill.

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Ridgely • Chestnut • Trees,

"Decidedly the finest and handsomest, really good, large Chestnut
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MILLER RED RASPBERRY. Plants of my own growing—genuine—
at reasonable prices.

Asparagus Roots. BARR'S MAMMOTH.
COLUMBIAN, MAM WHITE, P. EMERSON, - - WYOMING, KENT CO., DEL.

THIS is what I have to Offer for Spring packing:

300 COLUMBIAN RASPBERRIES, fine plants.

200 BALTIMORE BELLE ROSES, extra fine plants.

Write me for Prices.

C. L. YATES, Rochester, N. Y.

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Syracuse Nurseries.

Nurserymen and dealers in the best quality of nursery
stock should not fail to remember that this old and reliable
house are offering rare bargains in all classes of

**Fruit and Ornamental Trees, Shrubs,
Vines, Roses and Hedge Plants**

for the Spring of 1896, and invite personal inspection and
correspondence.

Budded Apples, Standard and Dwarf Pears.

Plums, Cherries, Peaches, Quinces,

Honey Locust for Hedges,

Kilmarnock Willow, Maple in variety, Mountain Ash,

Camperdown Elm, American Elm, Cut Leaved Birch,

Linden, Evergreens, English and Black Walnut,

Kentucky Coffee Trees, Magnolias, Poplars.

**Extra Sized Shrubs and Vines, Strong Budded
Roses.**

Berberry, Hydrangea, Syringa, Deutzia, Weigela,
Lilac, American Ivy, Wistaria, Honeysuckle,

and a long list of other trees and plants, all well and carefully
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Holstein-Friesian Cattle, Carriage, Coach and Driving
Horses, of the best breeding and quality, for sale at reasonable
prices.

SMITHS & POWELL CO., SYRACUSE, N. Y.

When writing to Advertisers mention the National Nurseryman.

60,000 CURRANTS.

ALSO A CHOICE STOCK OF



CHERRY, PEAR,
PLUM, PEACH,
ROSES, Etc.

Send for new Spring Price List.

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BLOOMINGTON, ILL.

The Sparta Nurseries Always have in stock their Dry Baled Moss.
Same quality in bulk.

The Finest Grade of Strawberry, Raspberry and Blackberry Plants
ever offered. Write for Prices.

Sparta, Wis., Aug. 1, 1895

Z. K. JEWETT & CO.

TREES AND PLANTS WHOLESALE and RETAIL.

200,000 PEACH TREES,

2,000,000 STRAWBERRY PLANTS,

100,000 BLACKBERRY,

500,000 RASPBERRY.

Ideal, Oriole and Lady Thompson Strawberry,
Miller, Loudon, Cuthbert, Columbian Raspberries,
Eldorado, Maxwell, Leader Blackberries.

All the old and new varieties, fine stock, low prices. Our catalogue
free will save you money.

MYER & SON,

Bridgeville, Del.

TEN ACRES OF THE
WONDERFULLY
POPULAR

Greenville Strawberry

(Grown by the originator and introducer.)

30,000 Trees of Downing's Winter Maiden Blush Apple

Like its parent, Fall Maiden Blush, but keeps all winter.

We are growing these specialties for the trade and are prepared to render the
best of service. For terms, plates, &c., apply to

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SAVE MONEY ON FRUIT PLANTS!

STRAWBERRIES a specialty. 3 Farms. Immense stock. A No. 1
plants. 50 best varieties Strawberry Low. Also Best Raspberries
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Nurseries buy by the ton to sell again. Can ship direct if you
wish.

Having a SURPLUS of some of the STANDARD like WARFIELD, PARKER
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sell, in LARGE LOTS, too low to quote here. Also PALMER, CUT-
BERT and GREGG, etc., same way. Full line of all new varieties—
first stock from originators and introducers.

We have our own moss swamp—write for FREE 24 page Catalogue.
It will save you money.

O. A. E. BALDWIN,

BRIDGEMAN, MICH.

WANTED.—Practical partner, some capital,
manage good nursery business fruit
section South Georgia.—H. W. REED, Pres't,
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W. and T. SMITH COMPANY.

The Geneva Nursery,

GENEVA, N. Y.

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CRIMSON RAMBLER ROSE,
Dormant Plants.

AMPELOPSIS VEITCHII,
2 years, Field Grown.

ROSES,
CLEMATIS,
RHODODENDRONS.

We supply everything needed for the general "Dealer Trade."

Send for our Wholesale Trade List.

1851. Knox Nurseries. 1896.

We offer for Spring '96 the following Apple, Cherry, etc. Clean and healthy, good roots and tops, strictly first-class.

APPLE, Year, 3-4 and up, 5 to 6 ft.—16,000 Ben Davis, also Akin, Benoni, Aut. Strawberry, Buckingham, Gano, Grimes, Lauver, M. B. Twig, M. Blush, Sops of Wine and Walbridge in smaller quantities. Plenty of smaller grades also.

APPLE, 3 Year, 3-4 and up, 5 to 7 ft.—20,000 Ben Davis, also Akin, Ark, Black, Benoni, Grimes, Jonathan, M. B. Twig, M. Blush, Pewaukee, Wine Sap and Walbridge in smaller numbers.

APPLE, Year, 5-8 to 3-4, 5 to 6 ft.—Very cheap. Good assortment.

CHERRY, Year, 3-4 and up.—3,000 Ea. Richmond.

BLACKBERRIES.—Snyder, root cuttings, 20,000.

Send us a list of wants. We will not be undersold.

H. M. Simpson & Sons, Vincennes, Ind.



A SPRAYER!

Best and Cheapest on the market.

SPRAYS TREES, PLANTS, VINES, ETC.

AMONG so many advertisements it may be hard to choose, but if you will write me I will convince you that I have the best and fastest selling Sprayer in the market, and that you can make more money selling them than on any other article in the list of advertisements. Try me and see.

H. B. RUSLER, Johnstown, Ohio.

Woodlawn Nurseries,

ROCHESTER, N. Y.

ALLEN L. WOOD, Prop.

WHOLESALE ONLY.

GROWER OF

Small Fruit Plants for Nurserymen and Dealers.

WE offer for the Spring of '96, the largest and most complete collection in the United States of high grade small Fruit Plants for Nurserymen and Dealers. Special attention is directed to the following Raspberries in large quantities:

Transplants and strong Suckers.

Cuthbert, Caroline, Brandywine, Brinkle Orange, Golden Queen, Herstine, Marlboro, Rancocas, Thompson's Early Prolife. Also an immense lot Columbia, Doolittle, Gregg, Johnson's Sweet, Kansas, Lovett, Mammoth Cluster, Ohio, Palmer, Souhegan, Shaffer's Colossal and Tyler, of extra heavy tips for Spring.

Blackberries, root cuttings.

A large lot of Agawam, Ancient Briton, Early Harvest, Erie, Eldorado, Kittatinny, Lawton, Lucretia Dewberry, Minnewaski, Taylor, Snyder, Wachusett, Wilson Early and Wilson Jr.

Currants, 1 and 2 yrs.; extra fine plants,

of the following: Blk. Naples, Cherry, Blk. Champion, Red Dutch, Fay's Pro., La Versailles, North Star, Lee's Pro., White Grape, Victoria, and Prince Albert.

Gooseberries, 2 yrs.; extra fine plants.

Pearl (New), Downing, Houghton, Red Jacket, Industry, Keepsake.

Strawberries.

Millions of Plants of all the leading kinds, all from new beds.

Asparagus, 2 year Roots.

Millions of the following varieties: Conover's Colossal, Palmetto and Elmira.

Rhubarb, 100,000 Myatt and Victoria.

Extra fine plants. Also large stock 2 yrs. Grape Vines of all the leading kinds.

For miscellaneous stock look at Wholesale Price List for Spring, ready February 1st. Free.

Scotch Pine, (Sheared Specimens) 3 to 5 ft.
Austrian Pine, " " 2 ft.
Am. Arbor Vitæ, 6 to 10 in., bedded, 2 years.
" " 4 to 5 ft., transplanted twice.
Norway Spruce, 2 to 3 ft., fine, "
Peach Trees, 9-16 up, CROSBY, ELBERTA, Etc.
" " 1 to 9-16, "
" " 2nd class, good, " "

Address JOSIAH A. ROBERTS,

Malvern Nurseries,

Malvern, Chester Co., Pa.

R. H. BLAIR & CO.,

Office Northwest cor. 11th & Walnut Sts.

KANSAS CITY, MO.

Proprietors of Lee's Summit Nurseries.

Established in 1866 by Blair Bros.

Wholesale and Retail.

STRICTLY No. 1 APPLE TREES BY CAR LOT, AND
RUSSIAN AND AMERICAN APRICOTS AND NATIVE PLUM.
ROSES, ORNAMENTAL AND SHADE TREES.

Prices Low. No better shipping facilities. We are not surpassed by any in the West in number of acres or quality of stock. We have the only practical Box Clamp in use. Price reduced.

HEADQUARTERS FOR

CLEMATIS PANICULATA, in extra heavy grades.

HARDY PERENNIALS, in greatest variety.

LIGUSTRUM IBOTA, the New Hardy Hedge Plant.

HEAVY WHOLESALE BLOCKS of Louisa Morrow, Forsythia suspensa, Amorpha fruticosa, Golden Russian Willow, Etc.

Special Quotations at any time.

The Reading Nursery, JACOB W. MANNING, Proprietor,
READING, MASS.

PEAR.
PLUM.

Gooseberries—Currants

Large Stock. Low Rates.

E. MOODY & SONS,

Niagara Nurseries,
Established 1839.

LOCKPORT, N. Y.

PEACH.
CHERRY.

1865.

1896.

JOHN CHARLTON, University Avenue Nurseries,

ROCHESTER, N. Y.,

Grower of

Pears, Plums, Apples, Cherries, Quinces.

ORNAMENTALS.—Cut-leaf Weeping Birch XX., Purple Beech, Purple Birch, Oak-leaf Mountain Ash, Weeping Mountain Ash, Weeping Willows, Maples, Poplars, &c., &c.

CLEMATIS, 2 year, strong NURSERY GROWN plants, now in cellar, can be shipped any time. Home grown are much superior to imported *dropsical* "Holland" plants. I have in large quantities, Coccinea, Crispa, Henryii, Jackmanii, Paniculata, Ramona, and the WONDERFULLY FINE NEW CRIMSON VARIETY, MAD. ED. ANDRE.

ROSES in assortment. A large lot, finest kinds.

SHRUBS.—A choice collection. Elegant plants.

TREE PAEONIES, and Herbaceous. Premier collection of Western New York.

CURRENTS, 2 yrs, Cherry, Fay's, Prince Albert, North Star, and White Grape.

GOOSEBERRIES.—I have in cellar many thousand extra fine 2 year Downing's, also fine 1 year do.; these are superior for retailing. Also, extra strong Industry, 2 and 3 years selected; Keepsake, 3 years; Whitesmith, selected, 2 years.

GRAPE VINES.—Diamond, Eaton, Moore's Early, Niagara, Rogers Nos., Worden, &c., &c.

I am one of the oldest growers in the trade.

Columbian Raspberry,

The greatest Raspberry introduction for years.

I am SPECIAL AGENT at Mr. Thompson's prices to the trade.

Descriptive Circulars and Colored Plates now ready.

CLEMATIS, in varieties, mostly Jackmanni.

RHODODENDRONS, hardy hybrids, Catawbiense grandiflora.

Hardy Azaleas, Tree Paeonia, Chinese Paeonia.

ROSES, H. P., budded and own roots, Climbing, Moss, Tree Roses; Hypericum Moserianum, Evergreens, Blue Spruce, etc., etc.

Now in stock, inspection cordially solicited. Quotations given, f. o. b. N. Y.

L. C. BOBBINK, Rutherford, N. J.

Branch of the Horticultural Company, Boskoop, Holland.

ROSES! ROSES!

Forcing Roses, Everblooming Roses, New Roses, Hybrid Roses, Polyantha Roses, Climbing Roses, Noisette Roses, in fact all kinds of Roses. Chrysanthemums, Carnations, Geraniums, Fuchsias, Cannas, Coleus, Hibiscus, Begonias, in fact, a general line of all kinds of plants for Florists' use. Our trade list now ready, send for it.

WE ARE
THE LARGEST
ROSE
GROWERS
IN THE
WORLD.

THE GOOD & REESE CO.,

Champion City Greenhouses,

SPRINGFIELD, OHIO.

WANTED!

A nursery selling through catalogues and advertising, wants a manager with experience and ability.

Give references, experience, etc. Communications confidential.

P. O. Box 472, - - ROCHESTER, N. Y.

When writing to advertisers mention The National Nurseryman.

T. C. WILSON,

ESTABLISHED 1855.

East Side Nurseries, - - Brighton, N. Y.

I have to offer for Fall, 1895, the following strictly first-class stock:

75,000 APPLE TREES,	25,000 STANDARD PEARS,
10,000 DWARF PEARS,	15,000 PLUM TREES,
15,000 CHERRY TREES.	10,000 PEACH TREES.

ALSO A FINE ASSORTMENT OF

Quince Bushes, Currant Bushes, Gooseberries, Ornamental and Shade Trees,

Tree Roses, H. P. Roses, Shrubs and Vines.

Write and get my prices before ordering elsewhere.

WILLOWDALE NURSERIES.

We offer for spring of 1896 a general assortment of Nursery stock, including:

200,000 Barr's Mammoth Asparagus, two year.

125,000 Osage Orange, one and two year.

Apple and Peach Trees, in carload lots.

Standard Pears, largely of Bartlett, Clapp's Favorite, Kieffer and Idaho.

Abundance and Burbank Plum.

Also a fine lot of Ornamental Shade Trees, in large quantities.

SEND LIST OF WANTS.

ADDRESS, **RAKESTRAW & PYLE,**

WILLOWDALE, Chester Co., Pa.

Evergreen Nurseries,

EVERGREEN, DOOR CO., WIS.

EVERGREEN NURSERY CO., Proprietors.

(SUCCESSORS TO GEO. PINNEY.)



Evergreens a Specialty,

IN GREAT VARIETY,
AND LARGE NUMBERS.

Also a fine stock of

DECIDUOUS,
ORNAMENTAL, and
SHADE TREES.

Prices the Lowest! Stock Warranted to be Good!

Complete Price List FREE.

For large orders send list of wants for special low prices.

SURPLUS STOCK of Norway Spruce, 2 to 4 inch seedlings, and 1 to 2 feet transplanted; Scotch Pine transplanted 3 to 6 feet; American Arbor Vitae, seedlings of all sizes, and transplanted 4 to 8, and 8 to 12 inches; Ponderosa Pine seedlings 3 to 4, 4 to 8, and 8 to 12 inches, transplanted 4 to 8 and 8 to 12 inches; Black Thorn, 3 to 4 and 4 to 6 feet; Catalpa Japan Hybrid, all sizes from 4 to 18 inches; Catalpa Speciosa, all sizes up to 2 feet; American Larch, all sizes; European Larch, all sizes from 8 to 36 inches; Sugar Maple, all sizes.

Will Exchange for Norway Spruce 4 to 6, and 6 to 8 inches; Irish Juniper, 4 to 8 and 8 to 12 inches; Pyramidal Arbor Vitae, small sizes, and any Hardy Ornamental Shrubs, Vines and Roses.

Let us know what you have to Exchange.

When writing to advertisers mention The National Nurseryman.

W. T. HOOD & CO.,

Old Dominion Nurseries—350 acres.

PEACH, (including Crosby, Champion, Sneed) }
STANDARD PEAR, } In
APPLE, } Large Stock.

A FULL LINE OF GENERAL NURSERY STOCK.
NATURAL PEACH SEED.

Very large packing sheds. Cold storage barn. The best facilities for proper packing, and prompt shipping.

W. T. HOOD & CO., - - RICHMOND, VA.

FINE APPLE TREES,
CAROLINA POPLARS,
..and..

SILVER MAPLES,

At Reasonable Prices

Address,

GEORGE ACHELIS,
WEST CHESTER, PA.

For Spring, we offer:

Strawberry Plants.

Brandywine	20,000	Haverland (P).....	500,000
Bisel (P)	2,000	Ivanhoe.....	5,000
Beele (P)	2,000	Lovett.....	200,000
Berlin (P).....	50,000	Lady Thompson.....	500,000
Beeder Wood.....	200,000	Marshall.....	5,000
Barton's Eclipse (P)	500,000	Meek's Early.....	50,000
Boynton (P).....	200,000	Mitchell's Early.....	200,000
Bubach No. 5 (P).....	500,000	Mrs. Cleveland (P)	200,000
Beverly.....	10,000	Muskingum.....	5,000
Cyclone.....	10,000	Parker Earle.....	100,000
Columbian.....	5,000	Phillips' Seedling.....	50,000
Chairs.....	15,000	Rio.....	5,000
Cumberland.....	15,000	Saunders.....	200,000
Crescent (P)	500,000	Sharpless.....	300,000
Dayton.....	100,000	Swindle (P).....	100,000
ENORMOUS (P)	10,000	Southard.....	10,000
E. P. Roe.....	10,000	Stayman's No. 1 (P).....	50,000
Enhance.....	300,000	Splendid.....	10,000
Eureka (P).....	100,000	Tennessee Prolific.....	200,000
Gandy (Late).....	100,000	Timbrell (P).....	10,000
Greenville (P).....	500,000	Van Deman.....	25,000
Gov. Hoard.....	10,000	Warfield No. 2 (P).....	500,000
Gen. Putman (P).....	10,000	Wolverton.....	50,000
Hoffman.....	100,000	Wilson.....	50,000

900,000 Asparagus Roots,

Donald's, Elmira, Palmetto, Barr's and Conover's

100,000 Peach Trees,

Including Elberta, Crosby and Champion.

100,000 Blackberry Plants,

WILSON and EARLY HARVEST.

Special quotations on application. Send your List of Wants.

J. G. HARRISON & SONS,
BERLIN, MD.

When writing to advertisers mention the National Nurseryman.

RED JUNE, the Coming Japan Plum.—After fruiting it four seasons, Red June proves to be *WORTH MORE* than all the other 20-odd Japs we have fruited put together. Large size, most beautiful red color, good quality, etc. But above and beyond all, very *early* and very *hardy* in bud and blossom. Loaded down with magnificent plums in 1895 when Abundance, Burbank, etc., in same orchard were a failure—killed in bud. Ripens so early it also escapes that other twin-enemy of the Japs—the fruit-rot. Ripe June 28; was ready to ship several days earlier; colors perfectly even if picked when just turning; *doesn't drop*; juicy, of good quality and a *delicious* canning plum, with, as Pres. Berckmans says, "a Damson flavor." Tree vigorous, very hardy; large orchard trees of Red June and Burbank are perfectly sound and healthy, while

Abundance, Maru, etc., show injury from severe winters, and Satsuma, etc., are badly winter-killed.

Four years ago we said, "Red June seems without doubt the most valuable market plum produced up to this time."

Read "is" for "seems" and you have our present opinion. Nor are we alone. We have many testimonials, but no need to add to these letters—received from the world's greatest three authorities on Japanese plums:

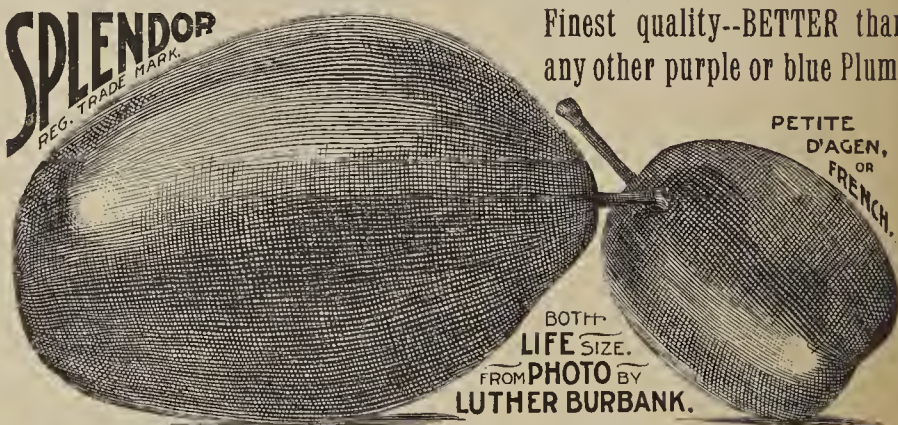


LUTHER BURBANK, Cal., July 27, 1895: "Red June fruited well this season with me. It is very large, firm and handsome and the tree a rapid grower. I think it a splendid market plum."

PROF. L. H. BAILEY, Cornell Exp. Station, July 29, 1895: "Red June is just now ripening with us. It is very much superior to Willard and is the best early Jap I have seen." LATER: "We have just finished picking Red June and I am convinced that it is the best Japanese plum tested here next to Burbank." LATER, Prof. Bailey writes us for "Fifty 1-year first-class trees of Red June, FOR MY OWN USE."

PRES'T P. J. BERCKMANS, Ga., Sept. 5, 1895: "There will be a big demand for Red June. I have for four years past advised our orchardists to plant it largely, but without avail; and now everybody asks for it. Mr. Rumph had 15,000 Abundance trees in bearing this year and made a handsome thing out of them, but if he had shipped Red June instead and FULLY 10 TO 15 DAYS EARLIER, the returns would have been even larger."

SPLENDOR
REG. TRADE MARK



Finest quality--BETTER than any other purple or blue Plum.

SPLENDOR, the Greatest of All Plums of the European Type: We offer to one firm in each State where domestica plums and prunes are grown, the sole right to grow and handle **SPLENDOR**, \$3,000.00 prune, under Reg. Trade Mark—write for particulars. Drop a postal for Wholesale, also Trade List—for Wholesale prices are not our Trade prices.

STARK BRO'S Nur. & Orch. CO.
LOUISIANA, MO. ROCKPORT, ILL.

Capital Nurseries,
NORTH TOPEKA, KAN.

PETERS & SKINNER,
Proprietors.

Apple Trees.

A large and fine stock, good assortment, strong on northern sorts.

PEACH, PLUM AND CHERRY TREES.

DOUBLE FLOWERING CRAB,

APPLE SEEDLINGS.

PEAR SEEDLINGS.

Correspondence Solicited.

PETERS & SKINNER.

When writing to advertisers menti on The National Nurseryman.

A - - -

Great Specialty.

The climate and soil of the Maple Avenue Nurseries, added to the experience gained in a long series of years in growing **Peaches**, induce the proprietors to recommend their stock with the greatest confidence. They grade carefully into three sizes: First-class, First-class Light, and Second-class; either of which will be found entirely healthy and well worthy of attention.

In the line of

Ornamental Shrubs and Vines,

A department which receives much care, the proprietors direct attention to the following, of which they have fine blocks to offer the coming spring. **Exochorda Grandiflora, Ornamental Grasses, Prunus Triloba, Viburnum Plicatum, Yucca Filamentosa, Clematis Flammula and Wistaria Frutescens.** The stock is all fine and the prices exceedingly low.

SEND FOR NEW TRADE LIST.

Hoopes, Brother & Thomas,

Maple Avenue Nurseries. WEST CHESTER, PA.

ESTABLISHED 1853.

GRAPE NIAGARA VINES

All old and new

varieties. Extra qual

ity. Warranted true. Lowest Rates. Introducers of the

EATON.

Also other SMALL FRUITS. Descriptive Catalogue Free.

T. S. HUBBARD CO., Fredonia, N. Y.

ESTABLISHED 1852.

Phoenix Nursery Co., 600 Acres. 13 Greenhouses. .

(SUCCESSORS TO SIDNEY TUTTLE & CO.)

NURSEYMEN AND FLORISTS ❖ Wholesale and Retail.

Correspondence solicited and promptly answered.
Send list of wants for prices. Salesmen wanted.

P. O. BOX 1215.

BLOOMINGTON, ILL.

The Sedgwick Nursery Co., SEDGWICK, KANSAS.

Successor to CHAUNCEY A. SEAMAN,

Offers special low prices on two car loads of Apples that are very fine in every way.

100,000 Shade Trees, large and small, very low in price and fine in quality.

Write at once if you want them.

NURSEYMEN Should read this, I have just what you want. Always in stock, a nice clean article of dry baled **SPAHGNUM MOSS**. No delay or freight charges from branch roads. Orders for less than large car load shipped the first day received.

L. G. THOMPSON,

Write me for easy terms and prices.

TOMAH, WIS

When writing to advertisers mention The National Nurseryman.

Imported Stock

Fine Condition.

Mahaleb, Myrobolan, Quince, Pear.



APPLE TREES, 2 years, all grades, good assortment.

CHERRY TREES, 2 years, No. 1, very low.

KIEFFER PEAR, 2 years, at quick-sale prices.

PEACH TREES, 5 to 7 feet, fine.

F. W. WATSON & CO., TOPEKA, KANSAS.

Andre Leroy Nurseries

THE OLDEST FRENCH NURSERIES.

ESTABLISHED 1780.

BRAULT & SON, Directors,
ANGERS, FRANCE.

SPECIALTY OF NURSERY STOCK.

AZALEAS, CAMELIAS, RHODODENDRONS,
MAGNOLIAS, LILAC, ETC.

AGENT FOR
UNITED STATES AND CANADA, * * *

ANDRE L. CAUSSE,

105 and 107 Hudson Street, New York City.



We have in surplus and very cheap

STANDARD PEARS

Anjou, Bartlett, Buffum, Clapp's Favorite, Duchess, Flemish Beauty, Howell, Lucrative, Lawson, Louise Bonne de Jersey, Osband's Summer, Sheldon, and Tyson. 1½ down to ¼ inch caliper, also a full line of other

FRUIT TREES.

GRAPE VINES, and
SMALL FRUITS.

Trade prices and descriptive catalogue free. Send list of wants to price.

LEWIS ROESCH,
FREDONIA, N. Y.

When writing to advertisers mention The National Nurseryman.

OSAGE NURSERIES

OSAGE, IOWA.

Picea Pungens, or the Silver Spruce of Colorado.

This tree has been called the "King of the Spruces" and it is entitled to that distinction. It is found in the deep gorges of the Rocky Mountains, at an altitude generally exceeding eight thousand feet. When nursery grown and planted out, it seems to succeed almost everywhere, from Minnesota to North Carolina, and from the Western Mountains to the Atlantic Ocean.

The leaves are one-half to one inch long, broad, rigid, stout, sharply acute, usually curved, pale green above, silvery glaucous beneath, on smooth and shining branchlets. Cones very abundant, three to five inches long, and grow in clusters in the upper part of the tree. Seed very small, nearly two hundred thousand to the pound.

When these trees are small, and in the seed beds, the leaves are not then so stout and rigid, but they are sharply acute, and thus are easily distinguished from Englemanni, which have a decided awl point.

The seeds which we plant are gathered from the best specimens that can be found in Colorado, and we guarantee all our plants to be genuine *Picea Pungens*.

We have sent samples of our trees to the Department of Agriculture, Washington, for inspection, and the following letter explains itself.

U. S. DEPARTMENT OF AGRICULTURE,
DIVISION OF FORESTRY,
WASHINGTON, D. C., Feb. 14th, 1896.

Mr. Charles F. Gardner, Osage, Iowa.

DEAR SIR:—The specimens of Spruce sent by you are, beyond question, *Picea Pungens*; any one mistaking it for any other spruce, especially *Englemanni*, is not acquainted with either species. The sharp needle point is absolutely characteristic, while *Englemanni* has a decided awl point. Also the buds of *pungens* are larger and lighter colored. The needles are somewhat deficient in the usual stiffness, which deficiency is common with young thrifty shoots.

Yours truly,

B. E. FERNOW, Chief.

We have had many years experience in growing evergreens from the seed, and can show millions of them growing on our grounds that are as thrifty and vigorous as can be found in any part of the United States. We have the following sizes of *Picea Pungens* to offer to the spring trade: 8 to 12 inches, 6 to 8 inches, 4 to 6 inches, and 2 to 4 inches.

We are the originators of the "Gardner" Strawberry, and are happy to state that we have a large stock on hand of very fine plants that have not been allowed to bear fruit, except for the purpose of inspection, for seven years, thus ensuring the strongest vitality possible.

Write us for Prices.

GARDNER & SON, - Osage, Iowa.

We need a few Apple and Plum Trees for our Spring Trade.



PAINESVILLE NURSERIES.

Gault Perpetual Raspberry.

A valuable market variety. A perpetual bearer. Ripens a crop of berries at time of Gregg, producing more fruit; continues bearing on young wood until killed by frost,—not a few scattering berries but frequently 80 to 100 on a single tip. Berries fine quality, extra large and firm; plant a vigorous grower, extremely hardy, going uninjured through past winter where many kinds were killed.

Special inducements to large buyers for Spring, 1896.

—CIRCULARS, COLORED PLATES, ETC., AT LOW RATES.



GAULT RASPBERRY, FROM PHOTO OF CLUSTER
PICKED IN SEPTEMBER.

Our usual immense assortment of Fruit and Ornamental Trees,
Grape Vines, Small Fruits, Roses, Shrubs, Bulbs,
Hardy and Tender Plants, Etc.,

All young thrifty stock, carefully grown and graded to the highest standard.

FRUIT TREES

Especially fine Standard and Dwarf Pear, Peach, Plum, Cherry, Quince, Apricot, &c.

SMALL FRUITS

Large stock leading old and new varieties. Gooseberries, Currants, Blackberries, Dewberries, Raspberries, &c., grown from pure stock, graded and handled right.

ORNAMENTALS

Of all kinds, handsome blocks of well grown trees Deciduous and Evergreen, upright and weeping. Largest and finest lot of Carolina Poplars on the market. Splendid stock of Silver, Norway, Schwedlerii and Ash leaf Maples, European and Cut-leaf Birch, Catalpas, Lindens, Horse Chestnuts, Flowering Thorns, Tulips, Willows, &c.

SHRUBS

A splendid stock of well-grown plants in large assortment of varieties.

ROSES

We lead the world in field grown Roses. Immense stock field grown Hybrid Perpetual, Moss, &c., budded low on Manetti. Best plants at lowest rates. Fine block of Holland grown Tree Roses for Fall delivery.

BULBS

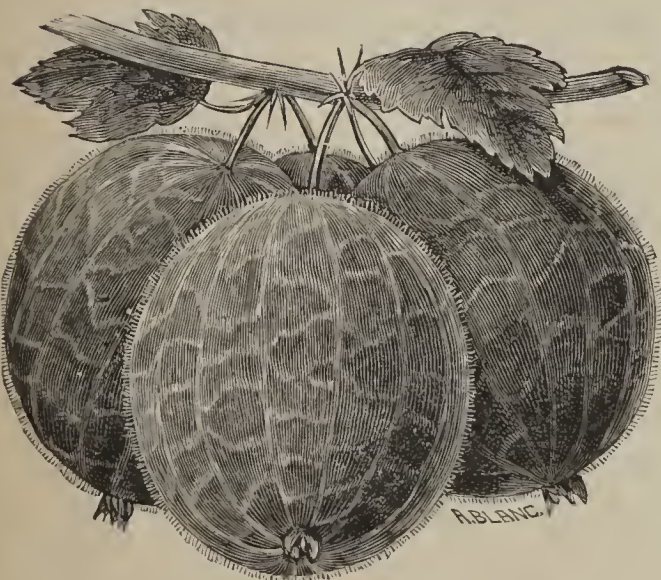
All the varieties for Fall planting direct from the best French and Holland growers.

Largest, most complete and best equipped cellars and packing houses. Stock stored for Spring delivery when desired. Facilities for prompt and accurate filling of orders are unsurpassed.

YOUR INSPECTION CORDIALLY INVITED AT ANY TIME.

LET US ESTIMATE ON YOUR LIST OF WANTS.

CATALOGUES AND PRICE LISTS FREE.



INDUSTRY.

41st YEAR.

1,000 ACRES.

29 GREENHOUSES.

THE STORRS & HARRISON CO.,
PAINESVILLE, OHIO.

"The most complete Nurseries on the American continent."
—American Rural Home.

THE MOUNT HOPE NURSERIES, ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Leading Specialties FOR SPRING, 1896.

DUCHESSE PEARS, Dwarf.
CURRANTS, Fay's, La Versaillaise, Victoria.
GOOSEBERRIES, Downing, Industry.
RASPBERRIES, Golden Queen, Superlative (new) Red.
ELM, American, 8 to 10 ft.
HORSE CHESTNUT, White-flowered, 6 to 7 ft., and 7 to 8 ft.
MAPLE, Sugar, 8 to 10 ft.
POPLAR, Lombardy, 8 to 10 ft.
MOUNTAIN ASH, Oak-leaved, 6 to 7 ft.
DEUTZIAS, in variety.
FORSYTHIAS, in variety.
ELÆAGNUS Longipes, the coming shrub.
HONEYSUCKLES, Upright.
SPIRÆA, Golden.
PRUNUS PISSARDI, (Purple-leaved Plum.)
SYRINGA, Golden; California Privet.

Hardy Roses, Dormant Plants,
Two Years Old.

Crimson Rambler Rose,
The greatest Rose Novelty of recent years.

WHOLESALE CATALOGUE ON REQUEST.

ELLWANGER & BARRY.
56th Year.

Closing Out Sale

Of a large stock ASPARAGUS ROOTS,
2 and 3 year growth, for the next 60
days.



Varieties, PALMETTO and CONOVER'S
COLOSSAL.

• • Special Bargains • • •

on the above to buyers who handle
in large quantities.

Address,

ALEX. PULLEN,

Milford Nurseries,

MILFORD, DEL.

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TREES AND PLANTS WHOLESALE and RETAIL

200,000 PEACH TREES,
2,000,000 STRAWBERRY PLANTS,
100,000 BLACKBERRY,
500,000 RASPBERRY.

Ideal, Oriole and Lady Thompson Strawberry,
Miller, Loudon, Cuthbert, Columbian Raspberries,
Eldorado, Maxwell, Leader Blackberries.

All the old and new varieties, fine stock, low prices. Our catalogue
free will save you money.

MYER & SON, - Bridgeville, Del.

BARGAINS

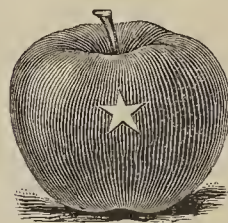
In some varieties of

Apples and Cherries.

Also in Standard and Dwarf Pears, two-year top Plums,
smooth trees, C. L. W. Birch of all sizes, low budded
Roses, Silver Maples and Oak-leaved Mountain Ash.

See list of varieties in March number of NATIONAL NURSERYMAN.
Write for prices which correspond with the times.

Jay Wood, Knowlesville, N. Y.



Surplus.



PLUMS.—5,000 Willard, Abundance, Spaulding and Lincoln.
PEARS.—5,000 Koonce, Kieffer, Seneca, Lincoln Coreless, Japan
Golden Russet.
APPLES.—A heavy stock of standard sorts. A limited supply of
Starr, Parlin and Flora.

NUTS

CHESTNUTS.—Alpha, Opens Sept. 5 to 10, without frost.
Parry's Giant, 4 to 6 inches around; the largest known
chestnut.
Pedigree Mammoth, Paragon, Gumbo, Ridgeley, &c.
WALNUTS.—French, Persian, Japan and English.
PECANS, ALMONDS, FILBERTS, SHELLBARKS.

NOVELTIES.

10,000 Eleagnus Longipes; 5,000 Matrimony Vines; 25,000 Trifoliate
Orange, 1, 2 and 3 year; 10,000 Japan Wineberry; Japan Mayberries;
Logan (Raspberry-Blackberry); Strawberry-Raspberry.
15,000 Imported Dwarf Rocky Mountain Cherry, 1 and 2 year.
10,000 Childs' Tree Blackberry—green plants, pot-grown.
10,000 Eldorado " " " "
10,000 Lovett's Best " " " "

A heavy stock of Strawberries, Raspberries, Blackberries,
Gooseberries and Currants.

Shade Trees—POPLARS AND MAPLES.

SEND FOR SPECIAL PRICES.

All stock disinfected and free from insect or disease.

WM. PARRY, Pomona Nurseries,
PARRY, - - NEW JERSEY.

When writing to advertisers mention The National Nurseryman.

1865.

1896.

JOHN CHARLTON, University Avenue Nurseries, ROCHESTER, N. Y.,

Grower of

Pears, Plums, Apples, Cherries, Quinces.

ORNAMENTALS.—Cut-leaf Weeping Birch XX., Purple Beech, Purple Birch, Oak-leaf Mountain Ash, Weeping Mountain Ash, Weeping Willows, Maples, Poplars, &c., &c.

CLEMATIS, 2 year, strong NURSERY GROWN plants, now in cellar, can be shipped any time. Home grown are much superior to imported *dropsical* "Holland" plants. I have in large quantities, Coccinea, Crispa, Henryii, Jackmanii, Paniculata, Ramona, and the WONDERFULLY FINE NEW CRIMSON VARIETY, MAD. ED. ANDRE.

ROSES in assortment. A large lot, finest kinds.

SHRUBS.—A choice collection. Elegant plants.

TREE PAEONIES, and Herbaceous. Premier collection of Western New York.

CURRENTS, 2 yrs., Cherry, Fay's, Prince Albert, North Star, and White Grape.

GOOSEBERRIES.—I have in cellar many thousand extra fine 2 year Downing's, also fine 1 year do.; these are superior for retailing. Also, extra strong Industry, 2 and 3 years selected; Keepsake, 3 years; Whitesmith, selected, 2 years.

GRAPE VINES.—Diamond, Eaton, Moore's Early, Niagara, Rogers Nos., Worden, &c., &c.

I am one of the oldest growers in the trade.

Columbian Raspberry,

The greatest Raspberry introduction for years.

I am SPECIAL AGENT at Mr. Thompson's prices to the trade.

Descriptive Circulars and Colored Plates now ready.



Electrotypes and Cuts

OF FRUIT TREES,
PLANTS, ORNAMENTALS FOR

Nurserymen, Florists, Seedsmen,

CATALOGUE OF FRUIT AND TREE CUTS FREE.
SEND FOR LIST OF OTHER CATALOGUES. 1000 PAGES.
Engravings of New Fruits made at Low Prices.

A. BLANC, Horticultural Engraver, 314 NORTH 11TH ST., PHILADELPHIA, PA.

GREAT REDUCTION!

HORTICULTURIST'S RULE BOOK.

Second Edition.

BY PROF. L. H. BAILEY.

This work retains all the good points of the original edition, and adds many new recipes, formulas, and facts, although it has been condensed into a somewhat smaller space. Every insecticide and fungicide which has gained prominence in the country is given, together with descriptions of all the leading diseases and insects of fruits, vegetables and flowers. In this direction the book is an epitome of all recent experiment and practice. IT IS ONE OF THE MOST INVALUABLE GUIDES TO THE MODERN METHODS OF SPRAYING FOR INSECT AND FUNGUS TROUBLES. Thousands of facts are crammed in the 221 pages of this little volume, among which are such as pertains to the Times for Sowing, the Quantities of Seeds Required for Given Areas, Planting Tables, the Longevity of Seeds, Recipes for all leading Grafting Waxes, and for Mortars, Cements, Paints and Glues, Longevity of Various Fruit Trees, Tables of Weights and Measures, Weather Signs, Indications of Frost, Ways of Grafting and Budding, Average Yields of Various Crops, Stocks Used for Fruit Trees, Laws Relating to Measures and Weights of Horticultural Produce, Statistics, Capacities of Pipes and Tanks, Rules of Nomenclature and for Exhibitions of Fruits, Flowers and Vegetables, Postage Rates, Methods of Collecting and Preserving Plants and Insects, Making of Perfumery, Printing Leaves and Flowers, Analysis of Leading Fertilizing Materials, Names of Vegetables and Fruits in Foreign Languages, Origin of Cultivated Plants, Glossary, and many other subjects of immediate interest to every one who lives out of doors. It is the only book of its kind, and no cultivator can afford to be without it. It is just what its name implies—a rule-book. Price, in flexible cloth binding, 75 cents.

THE NATIONAL NURSERYMAN PUBLISHING CO.,

305 COX BUILDING, ROCHESTER, N. Y.

When writing to advertisers mention The National Nurseryman.

T. C. WILSON,

ESTABLISHED 1855.

East Side Nurseries, - - Brighton, N. Y.

I have to offer for Fall, 1895, the following strictly first-class stock:

75,000 APPLE TREES,	25,000 STANDARD PEARS,
10,000 DWARF PEARS,	15,000 PLUM TREES,
15,000 CHERRY TREES.	10,000 PEACH TREES.

ALSO A FINE ASSORTMENT OF

Quince Bushes, Currant Bushes, Gooseberries, Ornamental and Shade Trees,

Tree Roses, H. P. Roses, Shrubs and Vines.

Write and get my prices before ordering elsewhere.

1851.

Knox Nurseries.

1896.

We offer for Spring '96 the following Apple, Cherry, etc. Clean. **APPLE AND CHERRY**, for Fall of 1896. Clean and healthy, good roots and tops, strictly first-class.

Special prices for early orders in car-load lots.

APPLE, Year, 3-4 and up, 5 to 6 ft.—16,000 Ben Davis, also Akin, Benoni, Aut. Strawberry, Buckingham, Gano, Grimes, Lauver, M. B. Twig, M. Blush, Sops of Wine and Walbridge in smaller quantities. Plenty of smaller grades also.

APPLE, 3 Year, 3-4 and up, 5 to 7 ft.—20,000 Ben Davis, also Akin, Ark. Black, Benoni, Grimes, Jonathan, M. B. Twig, M. Blush, Pewaukee, Wine Sap and Walbridge in smaller numbers.

APPLE, Year, 5-8 to 3-4, 5 to 6 ft.—Very cheap. Good assortment.

CHERRY, Year, 3-4 and up.—3,000 Ea. Richmond.

BLACKBERRIES.—Snyder, root cuttings, 20,000.

Send us a list of wants. We will not be undersold.

H. M. Simpson & Sons, Vincennes, Ind.

Evergreen Nurseries,

EVERGREEN, DOOR CO., WIS.

EVERGREEN NURSERY CO., Proprietors.

(Successors to GEO. PINNEY.)



Evergreens a Specialty.

IN GREAT VARIETY,
AND LARGE NUMBERS.

Also a fine stock of

DECIDUOUS,
ORNAMENTAL, and
SHADE TREES.

Prices the Lowest! Stock Warranted to be Good!

Complete Price List FREE.

For large orders send list of wants for special low prices.

SURPLUS STOCK of Norway Spruce, 2 to 4 inch seedlings, and 1 to 2 feet transplanted; Scotch Pine transplanted 3 to 6 feet; American Arbor Vitae, seedlings of all sizes, and transplanted 4 to 8, and 8 to 12 inches; Ponderosa Pine seedlings 3 to 4, 4 to 8, and 8 to 12 inches, transplanted 4 to 8 and 8 to 12 inches; Black Thorn, 3 to 4 and 4 to 6 feet; Catalpa Japan Hybrid, all sizes from 4 to 18 inches; Catalpa Speciosa, all sizes up to 2 feet; American Larch, all sizes; European Larch, all sizes from 8 to 36 inches; Sugar Maple, all sizes.

Will Exchange for Norway Spruce 4 to 6, and 6 to 8 inches; Irish Juniper, 4 to 8 and 8 to 12 inches; Pyramidal Arbor Vitae, small sizes, and any Hardy Ornamental Shrubs, Vines and Roses.

Let us know what you have to Exchange.

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W. T. HOOD & CO.,

Old Dominion Nurseries—350 acres.

PEACH, (including Crosby, Champion, Sneed) }
STANDARD PEAR, } In
APPLE, } Large Stock.

A FULL LINE OF GENERAL NURSERY STOCK.

NATURAL PEACH SEED.

Very large packing sheds. Cold storage barn. The best facilities for proper packing, and prompt shipping.

W. T. HOOD & CO., - - RICHMOND, VA.



TEN ACRES OF THE
WONDERFULLY
POPULAR

Greenville Strawberry

(Grown by the originator and introducer.)

30,000 Trees of Downing's Winter Maiden Blush Apple

Like its parent, Fall Maiden Blush, but keeps all winter.

We are growing these specialties for the trade and are prepared to render the best of service. For terms, plates, &c., apply to

E. M. BUECHLY, - - GREENVILLE, OHIO.



For Spring, we offer:

Strawberry Plants.

Brandywine	20,000	Haverland (P)	500,000
Bisel (P)	2,000	Ivanhoe	5,000
Beele (P)	2,000	Lovett	200,000
Berlin (P)	50,000	Lady Thompson	500,000
Beeder Wood	200,000	Marshall	5,000
Barton's Eclipse (P)	500,000	Meek's Early	50,000
Boynton (P)	200,000	Mitchell's Early	200,000
Bubach No. 5 (P)	500,000	Mrs. Cleveland (P)	200,000
Beverly	10,000	Muskingum	5,000
Cyclone	10,000	Parker Earle	100,000
Columbian	5,000	Phillips' Seedling	50,000
Chairs	15,000	Rio	5,000
Cumberland	15,000	Saunders	200,000
Crescent (P)	500,000	Sharpless	300,000
Dayton	100,000	Swindle (P)	100,000
ENORMOUS (P)	10,000	Southard	10,000
E. P. Roe	10,000	Stayman's No. 1 (P)	50,000
Enhance	300,000	Splendid	10,000
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Gov. Hoard	10,000	Warfield No. 2 (P)	500,000
Gen. Putman (P)	10,000	Wolverton	50,000
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900,000 Asparagus Roots,

Donald's, Elmira, Palmetto, Barr's and Conover's

100,000 Peach Trees,

Including Elberta, Crosby and Champion.

100,000 Blackberry Plants,

WILSON and EARLY HARVEST.

Special quotations on application. Send your List of Wants.

J. G. HARRISON & SONS,
BERLIN, MD.

When writing to advertisers mention the National Nurseryman.

RED JUNE, the Coming Japan Plum.—After fruiting it four seasons, Red June proves to be WORTH MORE than all the other 20-odd Japs we have fruited put together. Large size, most beautiful red color, good quality, etc. But above and beyond all, very early and very hardy in bud and blossom. Loaded down with magnificent plums in 1895 when Abundance, Burbank, etc., in same orchard were a failure—killed in bud. Ripens so early it also escapes that other twin-enemy of the Japs—the fruit-rot. Ripe June 28; was ready to ship several days earlier; colors perfectly even if picked when just turning; doesn't drop; juicy, of good quality and a delicious canning plum, with, as Pres. Berckmans says, "a Damson flavor." Tree vigorous, very hardy; large orchard trees of Red June and Burbank are perfectly sound and healthy, while

Abundance, Maru, etc., show injury from severe winters, and Satsuma, etc., are badly winter-killed.

Four years ago we said, "Red June seems without doubt the most valuable market plum produced up to this time." Read "is" for "seems" and you have our present opinion. Nor are we alone. We have many testimonials, but no need to add to these letters—received from the world's greatest three authorities on Japanese plums:

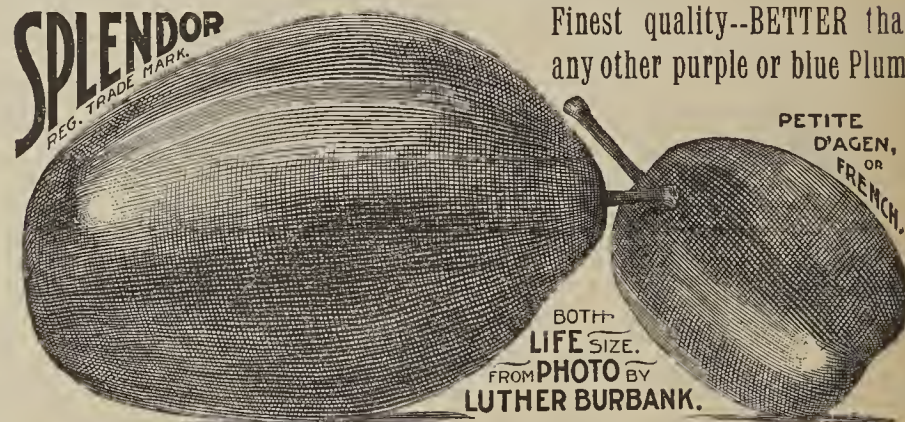


LUTHER BURBANK, Cal., July 27, 1895: "Red June fruited well this season with me. It is very large, firm and handsome and the tree a rapid grower. I think it a splendid market plum."

PROF. L. H. BAILEY, Cornell Exp. Station, July 29, 1895: "Red June is just now ripening with us. It is very much superior to Willard and is the best early Jap I have seen." LATER: "We have just finished picking Red June and I am convinced that it is the best Japanese plum tested here next to Burbank." LATER, Prof. Bailey writes us for "Fifty 1-year first-class trees of Red June, FOR MY OWN USE."

PRES'T P. J. BERCKMANS, Ga., Sept. 5, 1895: "There will be a big demand for Red June. I have for four years past advised our orchardists to plant it largely, but without avail; and now everybody asks for it. Mr. Rumph had 15,000 Abundance trees in bearing this year and made a handsome thing out of them, but if he had shipped Red June instead and FULLY 10 TO 15 DAYS EARLIER, the returns would have been even larger."

SPLENDOR
REG. TRADE MARK.



Finest quality--BETTER than any other purple or blue Plum.

SPLENDOR, the Greatest of All Plums of the European Type: We offer to one firm in each State where domestica plums and prunes are grown, the sole right to grow and handle SPLENDOR, \$3,000.00 prune, under Reg. Trade Mark—write for particulars. Drop a postal for Wholesale, also Trade List—for Wholesale prices are not our Trade prices.

STARK BRO'S Nur. & Orch. CO.

LOUISIANA, MO. ROCKPORT, ILL.

R. H. BLAIR & CO.,

Office Northwest cor. 11th & Walnut Sts.

KANSAS CITY, MO.

Proprietors of Lee's Summit Nurseries.

Established in 1866 by Blair Bros.

Wholesale and Retail.

STRICTLY No. 1 APPLE TREES BY CAR LOT, AND
RUSSIAN AND AMERICAN APRICOTS AND NATIVE PLUM.
ROSES, ORNAMENTAL AND SHADE TREES.

Prices Low. No better shipping facilities. We are not surpassed by any in the West in number of acres or quality of stock. We have the only practical Box Clamp in use. Price reduced.

The Sparta Nurseries Always have in stock their Dry Baled Moss. Same quality in bulk.

The Finest Grade of Strawberry, Raspberry and Blackberry Plants ever offered. Write for Prices. Sparta, Wis., Aug. 1, 1895. Z K. JEWETT & CO.

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W. and T. SMITH COMPANY.

The Geneva Nursery,

GENEVA, N. Y.

HEADQUARTERS FOR

CRIMSON RAMBLER ROSE,

Dormant Plants.

AMPELOPSIS VEITCHII,

2 years, Field Grown.

ROSES,

CLEMATIS,

RHODODENDRONS.

We supply everything needed for the general "Dealer Trade."

Send for our Wholesale Trade List.

GRAPE NIACARA VINES

All old and new

varieties. Extra qual

ity. Warranted true. Lowest Rates. Introducers of the

EATON.

Also other SMALL FRUITS. Descriptive Catalogue Free.

T. S. HUBBARD CO., Fredonia, N. Y.

ESTABLISHED 1852

Phoenix Nursery Co., 600 Acres. . . .
13 Greenhouses. .

(SUCCESSORS TO SIDNEY TUTTLE & CO.)

NURSEYMEN AND FLORISTS Wholesale and Retail.

Correspondence solicited and promptly answered.
Send list of wants for prices. Salesmen wanted.

P. O. BOX 1215.

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The Sedgwick Nursery Co., SEDGWICK,
KANSAS.

Successor to CHAUNCEY A. SEAMAN,

Offers special low prices on two car loads of Apples that are very fine in every way.

100,000 Shade Trees, large and small, very low in price and fine in quality.

Write at once if you want them.

NURSEYMEN Should read this, I have just what you want. Always in stock, a nice clean article of dry baled SPAHGNUM MOSS. No delay or freight charges from branch roads. Orders for less than large car load shipped the first day received.

L. G. THOMPSON,

Write me for easy terms and prices.

TOMAH, WIS.

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NEW VARIETIES

of FRUIT and FLOWERS are continually being plated by

Rochester Lithographing Co.

Here is a list of LITHOGRAPHED PLATES just added to our stock. All new designs drawn from nature and handsomely colored.

These are the best plates ever offered to Nurserymen.

Bismarck Apple.
Walter Pease Apple.
Wickson Plum.
Monarch Plum.
Abundance Plum.
Burbank Plum.
Satsuma Plum.
Red June Plum.
Giant Prune.
Tennant Prune.
Gault Raspberry.
Columbian Raspberry.
Lincoln Coreless Pear.
Koonce Pear.

Parker Earle Strawberry.
Greensboro Peach.
Clematis - Poniculata.
" Kermisina.
" Madam Ed. Andre.
Double Flowering Crab.
Tree Hydrangea.
Elaeagnus Longipes.
Maple, Ash-Leaf.
Crimson Rambler Rose.
Empress of China Rose.
Paul Neyron Rose.
Caprice Rose.

Collection Plates----A New Feature.

Several Varieties on One Plate.

3 Apples. 3 Grapes. 4 Raspberries. 4 Currants.
2 Climbing Roses--Baltimore Belle and Queen of Prairie.
3 Shade Trees--Mountain Ash, Ash-Leaved Maple and Silver-Leaved Maple, Mahonia and Tamarix.

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THE OLDEST FRENCH NURSERIES.

ESTABLISHED 1780.

BRAULT & SON, Directors,

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SPECIALTY OF NURSERY STOCK.

AZALEAS, CAMELIAS, RHODODENDRONS,
MAGNOLIAS, LILAC, ETC.

AGENT FOR
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ANDRE L. CAUSSE,

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Capital Nurseries,

NORTH TOPEKA, KAN.

PETERS & SKINNER,
Proprietors.

Apple Trees.

A large and fine stock, good assortment, strong on northern sorts.

PEACH, PLUM AND CHERRY TREES.

DOUBLE FLOWERING CRAB,

APPLE SEEDLINGS.


PEAR SEEDLINGS.

Correspondence Solicited.

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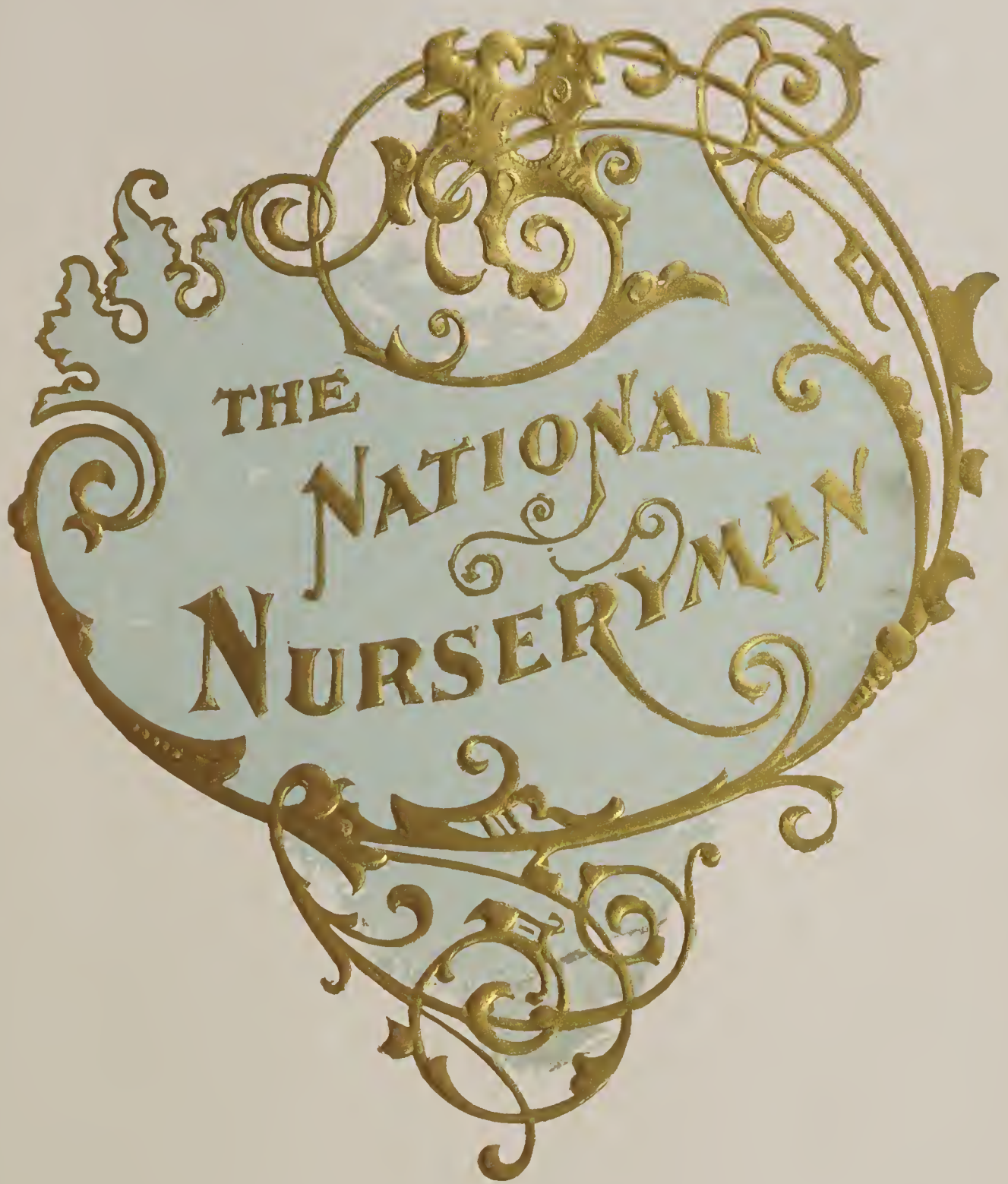
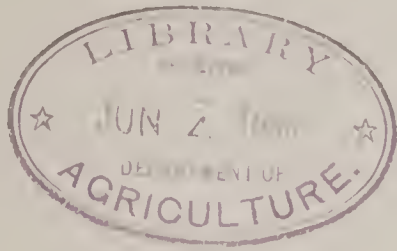


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June number, it will interest you

THE NATIONAL NURSERYMAN PUB. CO.

305 COX BUILDING,
ROCHESTER, N. Y.





June, 1896.

PAINESVILLE NURSERIES.

Gault Perpetual Raspberry.

A valuable market variety. A perpetual bearer. Ripens a crop of berries at time of Gregg, producing more fruit; continues bearing on young wood until killed by frost,—not a few scattering berries but frequently 80 to 100 on a single tip. Berries fine quality, extra large and firm; plant a vigorous grower, extremely hardy, going uninjured through past winter where many kinds were killed.

Special inducements to large buyers for Spring, 1896.

—CIRCULARS, COLORED PLATES, ETC., AT LOW RATES.

Our usual immense assortment of Fruit and Ornamental Trees,
Grape Vines, Small Fruits, Roses, Shrubs, Bulbs,
Hardy and Tender Plants, Etc.,

All young thrifty stock, carefully grown and graded to the highest standard.

FRUIT TREES

Especially fine Standard and Dwarf Pear, Peach, Plum, Cherry, Quince, Apricot, &c.

SMALL FRUITS

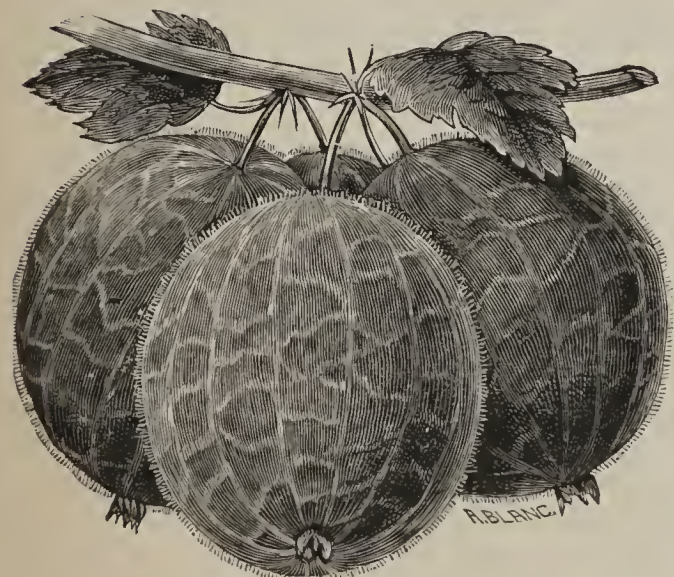
Large stock leading old and new varieties. Gooseberries, Currants, Blackberries, Dewberries, Raspberries, &c., grown from pure stock, graded and handled right.

ORNAMENTALS

Of all kinds, handsome blocks of well grown trees Deciduous and Evergreen, upright and weeping. Largest and finest lot of Carolina Poplars on the market. Splendid stock of Silver, Norway, Schwedlerii and Ash-leaf Maples, European and Cut-leaf Birch, Catalpas, Lindens, Horse Chestnuts, Flowering Thorns, Tulips, Willows, &c.



GAULT RASPBERRY, FROM PHOTO OF CLUSTER
PICKED IN SEPTEMBER.



INDUSTRY.

SHRUBS

A splendid stock of well-grown plants in large assortment of varieties.

ROSES

We lead the world in field grown Roses. Immense stock field grown Hybrid Perpetual, Moss, &c., budded low on Manetti. Best plants at lowest rates. Fine block of Holland grown Tree Roses for Fall delivery.

BULBS

All the varieties for Fall planting direct from the best French and Holland growers.

Largest, most complete and best equipped cellars and packing houses. Stock stored for Spring delivery when desired. Facilities for prompt and accurate filling of orders are unsurpassed.

YOUR INSPECTION CORDIALLY INVITED AT ANY TIME.

LET US ESTIMATE ON YOUR LIST OF WANTS.

CATALOGUES AND PRICE LISTS FREE

41st YEAR.

1,000 ACRES.

29 GREENHOUSES.

THE STORRS & HARRISON CO.,
PAINESVILLE, OHIO.

LOUIS LEROY'S NURSERIES,

(ESTABLISHED 1795.)

ANGERS (M. & L.) FRANCE.

GROWER AND EXPORTER OF

Fruit, Forest and Ornamental Tree Stocks.

CONIFERAE, SHRUBS, ETC.

AZALEAS, CAMELIAS, CLEMATIS, LILACS, MAGNOLIAS,
RHODODENDRONS, ROSES, ETC., ETC.

Orders Now Booked at Low Prices.

SOLE AGENT FOR U. S. AND CANADA,

AUG. RHOTERT,

26 BARCLAY STREET, - - - NEW YORK.

OF INTEREST TO NURSERYMEN.

We shall have our usual stock of PEACH TREES for Fall (1896) delivery. Are now ready to accept orders or make special contract for June or Fall Budding.

BUDS for Sale in Season.

Also, large stock of ASPARAGUS and STRAWBERRY PLANTS.

It will pay you to correspond with us.

W. M. PETERS' SONS,
WESLEY, Md.

Triumph Peach

Is coming to the front, not only through

printer's ink, but on its merits.

Earliest of all, freestone, free from rot, is the record that commercial planters are looking for.

Big profits are in store for those who start right, and disappointment to the unfortunates who fail in getting genuine stock.

Our stock is propagated from buds received direct from the originator. We offer a few thousand one-year 4 to 6 feet trees, but our specialty this season is growing on contract June Budded Trees of Triumph in any quantity from 1,000 to 50,000, in grades 1 to 2 feet, 2 to 3 feet, and 3 to 4 feet.

Write at once for prices and terms.

BUDS of this variety can be furnished in any quantity.

We also have our usual supply of PEACH TREES, and now are ready to make prices on box lots or car loads.

JOHN S. BARNHART, Denton, Md.

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TREES AND PLANTS WHOLESALE and RETAIL

200,000 PEACH TREES,

2,000,000 STRAWBERRY PLANTS,

100,000 BLACKBERRY,

500,000 RASPBERRY.

Ideal, Oriole and Lady Thompson Strawberry,
Miller, Loudon, Cuthbert, Columbian Raspberries,
Eldorado, Maxwell, Leader Blackberries.

All the old and new varieties, fine stock, low prices. Our catalogue free will save you money.

MYER & SON, - Bridgeville, Del.

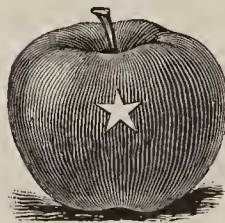
For Fall of 1896, and Spring of 1897,

I will now accept LOW PRICES for large orders of C. L. W. Birch for Spring of 1897. Also for Silver Maples, Catalpa, Black Walnut, Std. and Dwarf Pears, and Quinces.

Customers write: "Your stock suits every time."

WRITE FOR PRICES.

JAY WOOD, - Knowlesville, N. Y.



Surplus.



PLUMS.—5,000 Willard, Abundance, Spaulding and Lincoln.

PEARS.—5,000 Koonce, Kieffer, Seneca, Lincoln Coreless, Japan Golden Russet.

APPLES.—A heavy stock of standard sorts. A limited supply of Starr, Parlin and Flora.

NUTS

CHESTNUTS.—*Alpha*, Opens Sept. 5 to 10, without frost.

Parry's Giant, 4 to 6 inches around; the largest known chestnut.

Pedigree Mammoth, Paragon, Gumbo, Ridgeley, &c.

WALNUTS.—French, Persian, Japan and English.

PECANS, ALMONDS, FILBERTS, SHELLBARKS.

NOVELTIES.

10,000 Eleagnus Longipes; 5,000 Matrimony Vines; 25,000 Trifoliate Orange, 1, 2 and 3 year; 10,000 Japan Wineberry; Japan Mayberries; Logan (Raspberry-Blackberry); Strawberry-Raspberry.

15,000 Imported Dwarf Rocky Mountain Cherry, 1 and 2 year.

10,000 Childs' Tree Blackberry—green plants, pot-grown.

10,000 Eldorado " " " "

10,000 Lovett's Best " " " "

A heavy stock of Strawberries, Raspberries, Blackberries, Gooseberries and Currants.

Shade Trees—POPLARS AND MAPLES.

SEND FOR SPECIAL PRICES.

All stock disinfected and free from insect or disease.

WM. PARRY, Pomona Nurseries,
PARRY, - - NEW JERSEY.

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HARRISONS



ARE NOW READY for contracts to grow June Budded Peach. Have about one million seedlings, from natural seed. . . Come and see our stock before placing contracts

Harrison's Nurseries, BERLIN, MD.

Loudon Red Raspberry, from root cuttings, strong.
Ohmer Blackberry, best " " " "
100,000 Gladiolus, in 100 choice named varieties.
10,000 Wistarias, strong, in 4 choice varieties.
5,000 Paeonies, transplanted, 100 choice sorts named.

Lists Free.
E. Y. TEAS, Irvington, Ind.

C. F. McNAIR & CO., DANVILLE, N. Y.,

Offer for Fall '96, and Spring '97,
150,000 Apples.
35,000 Standard Pears.

10,000 Dwarf Pears.

50,000 Plums, 1 and 2 yrs., leading European and Japan varieties.

Also a good stock of APRICOTS, PEACHES, QUINCES, &c.

SPECIAL RATES ON CAR LOTS.

Buds and Scions in their season.

WRITE FOR PRICES.



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DIRECT FROM THE PACKERS, AFRICAN FRENCH COLONIES.

Before buying elsewhere apply for quotations to

ANDRE L. CAUSSE,

105-107 Hudson St., New York City.

Closing Out Sale



Of a large stock ASPARAGUS ROOTS, 2 and 3 year growth, for the next 60 days.

Varieties, PALMETTO and CONOVER'S COLOSSAL.

• • Special Bargains • • •

on the above to buyers who handle in large quantities.

Address,

ALEX. PULLEN,
Milford Nurseries, - Milford, Del.

ALLEN L. WOOD,

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ROCHESTER, N. Y.,

Wholesale Grower of Small Fruit Plants

. . . for Nurserymen and Dealers . . .

We offer for the Fall of '96, the largest and most complete collection in the world of high grade Small Fruit Plants.

SPECIALTIES:

Raspberries, Transplants, of all the leading kinds.

Blackberries, Root Cuttings, " " " "

Currants, one and two year, " " " "

Gooseberries, two year, " " " "

Introducer of the **Pearl**, the most prolific Gooseberry known. I have the largest block of Currant and Gooseberry of any Nurseryman in the United States.

*If you do not receive my Wholesale Catalogue, send for it.
Ready August 1st.*

P. S.—**Columbian Raspberries**.—I am growing a large stock of this valuable new berry; and I am "not in the combine" and can therefore make my own prices. I guarantee my stock to be the True Variety. Also growing this season Golden Mayberry, Strawberry-Raspberry, and Logan Berry.

Tree Roses, Hardy Azaleas,



Rhododendrons, Clematis,



For October First Delivery.

ALSO A FINE LINE OF

Ornamental Trees, Shrubs, Vines,
Own Root 2-year Roses.

ALSO

STD. PEAR, PLUM AND PEACH,
IN CAR LOAD LOTS.

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W. S. LITTLE & CO.,
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FOR TYING BUDS AND GRAFTS

Acknowledged superior to all other materials used for similar purposes. Sold by the pound. If you never saw it, get a sample and quotations.

THOMAS MEEHAN & SONS, Germantown, Pa.

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America's Greatest Nursery.

ELLWANGER & BARRY, *Mount Hope Nurseries,*

Established 1840.

ROCHESTER, N. Y.

Offer for Fall and Spring in addition to their usual large and complete collections of
GENERAL NURSERY STOCK, the following leading Specialties:

CURRENTS, 2 years, fine. Cherry, Fay's, Versailles, Victoria, White Grape.

GOOSEBERRIES, No. 1, extra fine plants. Columbus, Downing, Industry, Triumph.

The new **RED RASPBERRY**, Superlative.

ELEAGNUS LONGIPES, the fine new ornamental fruit-bearing Shrub.

CRIMSON RAMBLER ROSES, dormant field grown plants. Largest stock in the country.

The Grand New White Hybrid Perpetual Rose, **MARCHIONESS OF LONDONDERRY**, the newest and finest Hardy White Rose.

Large stock of **HARDY ROSES**, of the finest varieties, old and new.
Superb **FIELD GROWN PLANTS**, superior to the imported.

Fall Trade List issued August 1st, free on request. Special quotations on large lots.
Correspondence Solicited.

1865.

ABOUT CLEMATIS.

1896.



MAD. ED. ANDRE.

I wish to call the attention of Nurserymen, Dealers and Florists, who handle and sell Clematis, to this sterling novelty. I can cheerfully recommend it as being every way worthy of great consideration. Its color is very attractive, being a bright carmine crimson, and it is in fact the best and **only red** worthy of recommendation; a "*rara avis*" among clematis. For floriferousness nothing equals it, not even the redoubtable Jackmannii. I have without doubt the **largest stock in the world** to offer of it for **next fall**, also Jackmanni, Henryii, Ramona, Miss Bateman, Kermesina, Coccinea, Crispa, etc., in large quantities, **all from outdoor nursery grown plants**, free from blight and other defects

Prices reasonable.

JOHN CHARLTON,

University Ave. Nurseries,

ROCHESTER, N. Y.

"He that murders a crown destroys all that it might have produced, even scores of pounds."

—Franklin.

The force of the above observation, as Captain Cuttle would say, lies in its application.

DON'T BUY _____ STANDARD PEARS,



UNTIL YOU LEARN OUR LOW PRICES.

We would call your attention, also, to our complete line of nursery stock, including

INDUSTRY GOOSEBERRIES,
GREEN MOUNTAIN GRAPES,
CRIMSON RAMBLER ROSES,
AND NORTH STAR CURRANTS.

Eleagnus Longipes, Ampelopsis Veitchii and Mahonias.
European and Oak-Leaf Mountain Ash.
Birch, Cut-Leaf and Silver Maple.

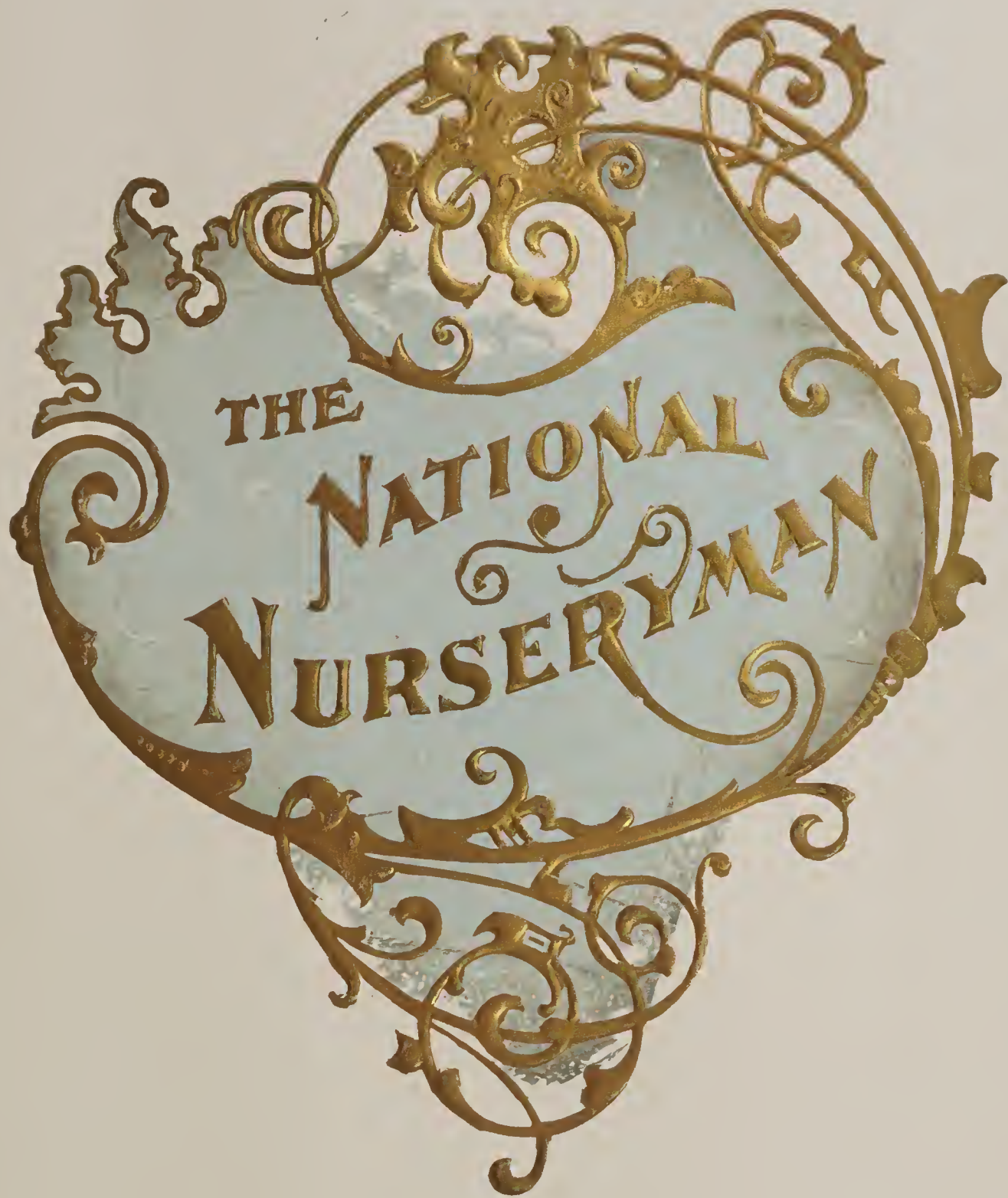
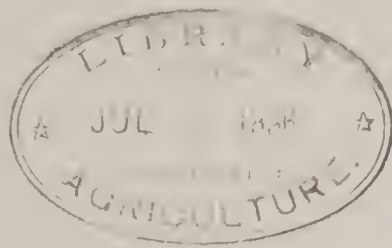


LET US HEAR FROM YOU _____

Brown Brothers Company,

CONTINENTAL NURSERIES,

ROCHESTER, N. Y.



July, 1896.

PAINESVILLE NURSERIES.

Gault Perpetual Raspberry.

A valuable market variety. A perpetual bearer. Ripens a crop of berries at time of Gregg, producing more fruit; continues bearing on young wood until killed by frost,—not a few scattering berries but frequently 80 to 100 on a single tip. Berries fine quality, extra large and firm; plant a vigorous grower, extremely hardy, going uninjured through past winter where many kinds were killed.

Special inducements to large buyers for Spring, 1896.

—CIRCULARS, COLORED PLATES, ETC., AT LOW RATES.

Our usual immense assortment of Fruit and Ornamental Trees,
Grape Vines, Small Fruits, Roses, Shrubs, Bulbs,
Hardy and Tender Plants, Etc.,

All young thrifty stock, carefully grown and graded to the highest standard.

FRUIT TREES

Especially fine Standard and Dwarf Pear, Peach, Plum, Cherry, Quince, Apricot, &c.

SMALL FRUITS

Large stock leading old and new varieties. Gooseberries, Currants, Blackberries, Dewberries, Raspberries, &c., grown from pure stock, graded and handled right.

ORNAMENTALS

Of all kinds, handsome blocks of well grown trees Deciduous and Evergreen, upright and weeping. Largest and finest lot of Carolina Poplars on the market. Splendid stock of Silver, Norway Schwedlerii and Ash-leaf Maples, European and Cut-leaf Birch, Catalpas, Lindens, Horse Chestnuts, Flowering Thorns, Tulips, Willows, &c.



GAULT RASPBERRY, FROM PHOTO OF CLUSTER
PICKED IN SEPTEMBER.

SHRUBS

A splendid stock of well-grown plants in large assortment of varieties.

ROSES

We lead the world in field grown Roses. Immense stock field grown Hybrid Perpetual, Moss, &c., budded low on Manetti. Best plants at lowest rates. Fine block of Holland grown Tree Roses for Fall delivery.

BULBS

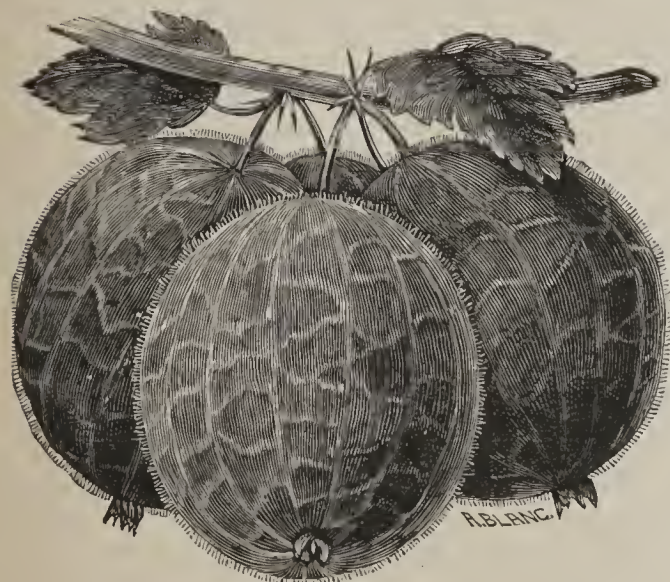
All the varieties for Fall planting direct from the best French and Holland growers.

Largest, most complete and best equipped cellars and packing houses. Stock stored for Spring delivery when desired. Facilities for prompt and accurate filling of orders are unsurpassed.

YOUR INSPECTION CORDIALLY INVITED AT ANY TIME.

LET US ESTIMATE ON YOUR LIST OF WANTS.

CATALOGUES AND PRICE LISTS FREE.



INDUSTRY.

41st YEAR.

1,000 ACRES.

29 GREENHOUSES.

THE STORRS & HARRISON CO.,
PAINESVILLE, OHIO.

AMERICA'S GREATEST NURSERY.

ELLWANGER & BARRY,

Mount Hope Nurseries,

ESTABLISHED 1840.

ROCHESTER, N. Y.

Offer for Fall and Spring in addition to their usual large and complete collections of **General Nursery Stock**, the following leading Specialties:

CURRENTS, 2 years. fine. Cherry, Fay's, Versailles, Victoria, White Grape.

GOOSEBERRIES, No. 1, extra fine plants. Columbus, Downing, Industry, Triumph.

The new **RED RASPBERRY**, Superlative.

ELEAGNUS LONGIPES, the fine new ornamental fruit-bearing Shrub.

CRIMSON RAMBLER ROSES, dormant field grown plants; largest stock in the country.

The Grand New White Hybrid Perpetual Rose, **MARCHIONESS OF LONDONDERRY**, the newest and finest Hardy White Rose.

Large stock of **HARDY ROSES**, of the finest varieties, old and new.

Superb **FIELD GROWN PLANTS**, superior to the imported.

Fall Trade List issued August 1st, free on request. Special quotations on large lots. Correspondence Solicited.

TREES AND PLANTS WHOLESALE and RETAIL

200,000 PEACH TREES,
2,000,000 STRAWBERRY PLANTS,
100,000 BLACKBERRY,
500,000 RASPBERRY.

Ideal, Oriole and Lady Thompson Strawberry,
Miller, Loudon, Cuthbert, Columbian Raspberries,
Eldorado, Maxwell, Leader Blackberries.

All the old and new varieties, fine stock, low prices. Our catalogue free will save you money.

MYER & SON, - Bridgeville, Del.

For Fall of 1896, and Spring of 1897,

I will now accept LOW PRICES for large orders of C. L. W. Birch for Spring of 1897. Also for Silver Maples, Catalpa, Black Walnut, Std. and Dwarf Pears, and Quinces.

Customers write: "Your stock suits every time."

WRITE FOR PRICES.

JAY WOOD, - Knowlesville, N. Y.

When writing to advertisers mention The National Nurseryman.

The New Climbing Rose,



YELLOW RAMBLER (AGLAIA) is now offered by us for the first time in this country, and will, we are confident, prove to be the most valuable Rose novelty of recent years. It was

ORIGINATED BY A LEADING EUROPEAN ROSE GROWER, Mr. Peter Lambert, who has carefully tested it for *eight years* before putting it out. Mr. Lambert is probably the most prominent and successful Rose grower in all Europe, and his reputation for reliability is so high, that we immediately secured from him the sole privilege of introducing the rose in this country. This new Rambler is

THE HARDEST YELLOW CLIMBING ROSE yet introduced. It has withstood a prolonged temperature of zero and under without injury, and we believe that it can be grown anywhere that other roses succeed. It is

A BLOOD RELATION TO CRIMSON RAMBLER. The Yellow Rambler is the product of the Japanese "Polyantha Samentosa," fertilized with pollen of the "Reve d'Or." The former of these was undoubtedly a parent of the Crimson Rambler and the two are, therefore, very closely related as is further shown by their

SIMILAR FOLIAGE, GROWTH AND BLOOMING. The leaves are of much the same shape and color; the habit of growth is very vigorous, established plants making shoots 8 to 10 feet in a season; the flowers are borne in the same immense trusses as the Crimson Rambler, frequently as many as 120 to 150 blossoms in a single bunch.

THE COLOR IS A RICH GOLDEN YELLOW.

Well established plants from 2½ in. pots ready last of July.

Prices on application.

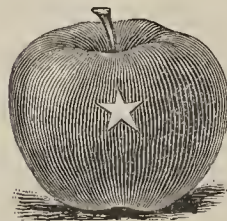
A splendid assortment of other **Roses, Clematis, Ornamentals, Small Fruit Plants and Fruit Trees** for Fall and Spring Shipment.

Our Trade List will be out soon—wait for it before placing your orders.

JACKSON & PERKINS,

Growers of Choice Specialties for Nurserymen and Dealers,

NEWARK, Wayne Co., NEW YORK.



Surplus.



PLUMS.—5,000 Willard, Abundance, Spaulding and Lincoln.

PEARS.—5,000 Koonce, Kieffer, Seneca, Lincoln Coreless, Japan Golden Russet.

APPLES.—A heavy stock of standard sorts. A limited supply of Starr, Parlin and Flora.

NUTS

CHESTNUTS.—Alpha, Opens Sept. 5 to 10, without frost.

Parry's Giant, 4 to 6 inches around; the largest known chestnut.

Pedigree Mammoth, Paragon, Gumbo, Ridgeley, &c.

WALNUTS.—French, Persian, Japan and English.

PECANS, ALMONDS, FILBERTS, SHELLBARKS.

NOVELTIES.

10,000 Eleagnus Longipes; 5,000 Matrimony Vines; 25,000 Trifoliate Orange, 1, 2 and 3 year; 10,000 Japan Wineberry; Japan Mayberries; Logan (Raspberry-Blackberry); Strawberry-Raspberry.

15,000 Imported Dwarf Rocky Mountain Cherry, 1 and 2 year.

10,000 Childs' Tree Blackberry—green plants, pot-grown.

10,000 Eldorado

10,000 Lovett's Best

A heavy stock of **Strawberries, Raspberries, Blackberries, Gooseberries and Currants.**

Shade Trees—POPLARS AND MAPLES.

SEND FOR SPECIAL PRICES.

All stock disinfected and free from insect or disease.

WM. PARRY, Pomona Nurseries,

PARRY, - - NEW JERSEY.

When writing to advertisers mention The National Nurseryman.

SEARS, HENRY & CO.

GENEVA, N. Y.,
Wholesale Nurserymen.

For the Fall of 1896 and Spring of 1897:

STANDARD APPLES.	PEACHES.
STANDARD PEARS.	QUINCES.
DWARF PEARS.	C. L. WPG. BIRCH.
CHERRIES.	KILMARNOCK WILLOW.
PLUMS.	SILVER L. MAPLE.

Also a good assortment of Small Fruits, Roses, Vines, &c.
 Stock of Best Quality, Lowest Prices. TRY US. Address

SEARS, HENRY & CO., - Geneva, N. Y.
 N. B.—RAFFIA—Fresh invoice, best quality, lowest price.

YOUNGERS & CO.

Geneva, Neb.

For the fall of 1896 we have a large stock of . .

Apple Seedlings, Grown on new land and absolutely free from Aphis.

Also OSAGE and HONEY LOCUST PLANTS, ROCKY MOUNTAIN DWARF CHERRIES; a large stock of SHADE TREES large and small,

And a general line of NURSERY GOODS.
 Correspondence Invited.

HEADQUARTERS FOR
 CLEMATIS PANICULATA, in extra heavy grades.
 HARDY PERENNIALS, in greatest variety.
 LIGUSTRUM IBOTA, the New Hardy Hedge Plant.

HEAVY WHOLESALE BLOCKS of Lonicera Morrowi, Forsythia suspensa, Amorpha fruticosa, Golden Russian Willow, Etc.

Special Quotations at any time.

The Reading Nursery, JACOB W. MANNING, Proprietor, READING, MASS.

In Car Load Lots.

Apple, Cherry,	Peach, Pear,	Plum, Etc.	Carolina Poplar, Silver Maple
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ALSO A GENERAL ASSORTMENT OF OTHER STOCK, SUCH AS
 GOOSEBERRIES, CURRANTS, and other SMALL FRUIT AND
 ORNAMENTAL TREES AND PLANTS.

— Complete List of Varieties;
 — Stock Young, Thrifty, and of Best Quality;
 — Carefully Graded and Handled.

Write for SPECIAL PRICES in CAR LOAD LOTS. Personal inspection courted. SPADES—see Trade List.
 Trade List ready Sept. 1st.

ALBERTSON & HOBBS,
 BRIDGEPORT, Marion County, - - - INDIANA.

Ornamental LARGE TREES, SMALL

FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

LEVAVASSEUR & SONS

NURSERIES,

USSY (CALVADOS) AND ORLEANS, FRANCE.
 Largest Growers and Exporters of all kinds of

NURSERY STOCKS TO THE UNITED STATES.
 Best Grading Quality and Packing.

Send your List of Wants for Special Prices to
 HERMAN BERKHAN, Sole Agent,
 39 and 41 Cortland St., - - - New York.

Sole Agent for the United States and Canada.

GRAPE	IMMENSE STOCK, LARGE ASSORTMENT.	VINES
	Correspond with us and get samples and prices before placing your orders. Introducers of the new early black grape, . . .	
	. . . EARLY OHIO, . . .	
	Ten days earlier than Moore's Early, and three times as productive.	
Address, C. S. CURTICE CO., Portland, N. Y.		

R. H. BLAIR & CO., Office Northwest cor. 11th & Walnut Sts.
 KANSAS CITY, MO.
 Proprietors of Lee's Summit Nurseries.

Established in 1866 by Blair Bros. Wholesale and Retail.
 STRICTLY No. 1 APPLE AND PEACH TREES BY CAR LOT, AND
 RUSSIAN AND AMERICAN APRICOTS, NATIVE PLUM.
 SHADE TREES AND APPLE SEEDLINGS by the Million.
 Prices Low. No better shipping facilities. We are not surpassed by any in the West in number of acres or quality of stock. We have the only practical Box Clamp in use.
 Price reduced.

The "TWIN COMET" and "LITTLE GIANT" LAWN SPRINKLERS.

UNIQUE, EFFICIENT, LABOR SAVING.	BEST MADE. Will sprinkle 4 times greater area than any other Sprinklers made. Just the Sprinklers for Nurserymen.	Highest Award at the Chicago Exposition
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SEND FOR CIRCULARS GIVING TESTIMONIALS AND PRICES.
 E. STEBBINS MFG. CO., Sole Manufacturers, SPRINGFIELD, MASS.
 When writing to advertisers mention The National Nurseryman.

THE WILLIAM H. MOON CO., MORRISVILLE, BUCKS CO., PA.,
 Offer for Fall, 1896.

- 1,000,000 Asparagus Roots, 2 years old, Palmetto, Barr's and Conover's.
- 5,000 Paragon and Numbo Chestnuts, 1 and 2 years, grafted.
- 20,000 Sugar and Silver-Leaved Maples, 8 to 14 ft.
- 10,000 Carolina Poplars, 8 to 15 ft.
- 2,000 Purple-Leaved Beech.
- 50,000 Deciduous Trees of Leading Varieties.
- 500,000 California Privet, 1 and 2 years old, very stocky.
- 100,000 Flowering Shrubs, including a full assortment of leading varieties.
- 10,000 Rosa Wichuriana.
- 20,000 Holesuckles—Climbing.
- 20,000 Climbing Vines—Assorted.
- 30,000 Dahlias—Finest Collection.

Special quotations on application. Correspondence with the trade solicited in reference to their wants in the Ornamental Line.
 When writing to Advertisers mention The National Nurseryman.

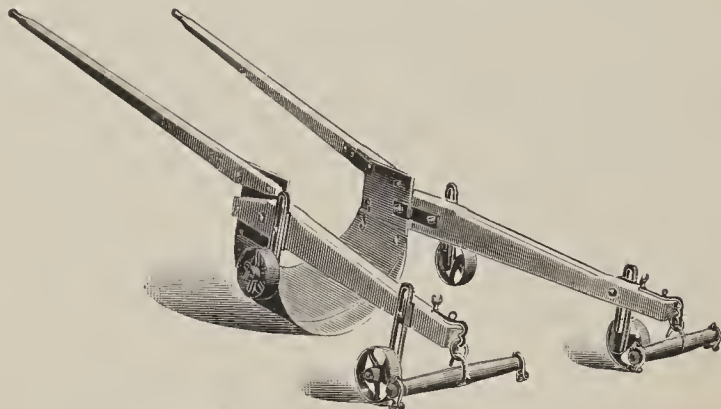
L. G. BRAGG & CO.

KALAMAZOO, MICHIGAN.

(39th Year.)

Our stock for fall of 1896 and spring of 1897 promises at this time to be excellent, consisting of Apples, two and three year buds; Pears, Standard and Dwarf; Plums, Cherries, Peaches, Ornamentals and Small Fruits.

We solicit correspondence.



BRAGG'S

Common Sense Tree Digger

Is known by leading nurserymen in every State in the Union, Canada and Europe. Comments are unnecessary, as all admit that the Common Sense Digger is the boss. We ship the Digger on trial, and should it prove unsatisfactory, Bragg pays the return freight.

MANUFACTURED BY

L. G. BRAGG & CO., - Kalamazoo, Mich.

EVERGREEN NURSERIES

Are headquarters for EVERGREENS and DECIDUOUS TREES. We have a great variety, and an immense stock. Send list of wants for prices. Catalogue free.

Will exchange for Small Fruits, Hardy Shrubs, Clematis, &c.

EVERGREEN NURSERY CO., - Evergreen, Wis.

P. SEBIRE & SONS, Nurserymen, USSY, Calvados, France.

A general assortment of Fruit Tree Stocks, such as Apple, Pear, Myrobalan Plum, Mahaleb and Mazzard Cherry, Angers Quince, Small Evergreens, Forest Trees, Ornamental Shrubs, Roses, Etc. The largest stock in the country. Prices very low. Packing secured. Send for quotations before placing your orders elsewhere. Catalogue free. Agents for U. S. America and Canada,

C. C. ABEL & CO., P. O. Box 920, NEW YORK.

F. JAMES, Ussy, (Calvados) France.

..Grower and Exporter of..



Fruit and Forest Tree Stocks, Coniferae, Ornamental Shrubs,

...ETC., ETC...

(ESTABLISHED 1800.)

Send your list of wants for special quotations.

Address J. A. de Veer, 15 Whitehall St., New York.
Sole Agent for United States and Canada.

PEACH TREES.....

BY THE 1,000 OR CARLOADS.



We offer Buds in all the STANDARD VARIETIES, including the three new extra early varieties, Sneed, Triumph and Greensboro. We believe they will have a great future.

J. BAIRD & SON,
MANALAPAN, N. J.

When writing to Advertisers mention The National Nurseryman.

For Fall '96 and Spring '97.

Peach Trees

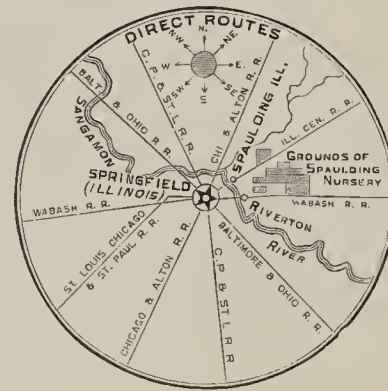
My own growing, the finest lot I ever raised on new land from natural seed, and best assortment.

WHITE BIRCH, CAROLINA POPLARS,

.. CALIFORNIA PRIVET, ETC. ..

JOSIAH A. ROBERTS, Malvern, Chester County, Pa.

SPAULDING NURSERY & ORCHARD CO. SPAULDING, ILL. NEAR SPRINGFIELD.



FOR JULY SHIPMENT.

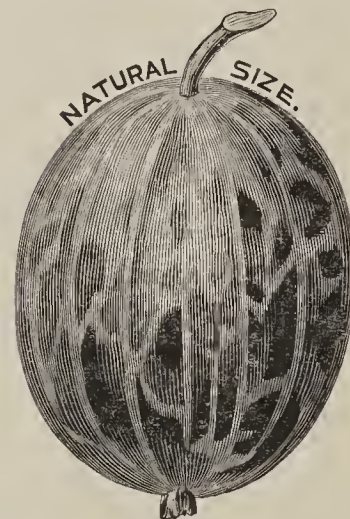
Apple, Pear, Cherry, Plum, Peach, Apricot **BUDS**

SUPPLIES Tying Cordage, Sewing Twine, Manufacturers Agt. for Burlaps, Etc.

FOR FALL GROWN FOR THE WHOLESALE TRADE.

Std. and Dwf. Pear, Plum, Cherry, Peach, Apricot, Currants, Blackberries, Grapes, Ornamentals, etc. MANY NEW VALUABLE SORTS.

VISITORS AND CORRESPONDENCE INVITED.



Spineless Gooseberries

Introduced by

LETELLIER & SON,
CAEN, FRANCE.

Orders for Fall delivery booked by

C. H. JOOSTEN, Sole Agt.,

193 Greenwich St., - NEW YORK

OF INTEREST TO NURSERYMEN.

WE shall have our usual stock of PEACH TREES for Fall (1896) delivery. Are now ready to accept orders or make special contract for June or Fall Budding.

== BUDS for Sale in Season. ==

Also, large stock of ASPARAGUS and STRAWBERRY PLANTS.

It will pay you to correspond with us.

W. M. PETERS' SONS,
WESLEY, Md.

GUSTAV KLARNER, Proprietor of the

QUINCY STAR NURSERIES

QUINCY, ILLINOIS,

Offers for Fall '96 or Spring '97, a fine lot of 2-year Cherry, in large or small lots. Strictly first-class stock.

Correspondence solicited. Write for prices.

GUSTAV KLARNER, Quincy, Illinois.

When writing to Advertisers mention The National Nurseryman.

The New White Gooseberry, CHAUTAUQUA,

Equals the finest and largest varieties in size, beauty and quality, and excels them all in vigor and yield.

HISTORY AND DESCRIPTION.

The Chautauqua was first found, several years ago, growing in the shade of some plum trees when our attention was attracted to it by the wonderful beauty and size of its fruit and robust habit of bush. We at once sent branches of it in fruit and leaf to noted Horticulturists for identification. Among them was the late Chas. Downing of Newburgh, N. Y. The report from each was that they did not recognize the variety, and that it probably is a seedling of a variety of the English type.

The first plants grown were planted on a warm gravelly loam in the shade of an apple and peach orchard; excepting a few which were sent to the New York State Experimental Station at Geneva, N. Y., for testing.

The bush of the Chautauqua is a very vigorous, stout, stiff, upright grower, having the usual complement of thorns. It should not be planted closer than four by six feet apart. Its leaves are large, glossy and dark green. Its fruit is of a beautiful light yellow color, perfectly free of spines and hair, veined and translucent, averaging in size 1 to 1½ inches in diameter, although we have often grown them 1½ inches long. It is rather thick skinned, but very sweet and of exquisite flavor.

The Chautauqua Gooseberry at the World's Fair.

At the World's Fair Exhibition there was perhaps the largest show of gooseberries ever made in this country. The Geneva Experiment Station has planted almost every known variety, both from Europe and America, and most of these were on exhibition. In competition with these were two plates of the Chautauqua Gooseberry which overshadowed everything on exhibition, either in the New York State exhibit or in any other exhibit, in size and beauty, and it was equal to anything exhibited in quality. It is safe to say that the Chautauqua is the largest gooseberry ever produced in this country; it is at the same time a remarkably vigorous grower and equally as great a bearer, being the most productive gooseberry in existence.

1000 Plants of the Chautauqua were sold before they were advertised, solely on the strength of what the parties had themselves seen of them.

In addition to the gooseberry spoken of, we offer a very large and complete assortment of **SHADE TREES** for private grounds and street planting, consisting of Elms, Maples, Carolina Poplars, Cut-leaf Weeping Birch, Magnolias, Lindens, Tulip Trees, Camperdown Elms, Kilmar-nock Weeping Willows, Purple Beech, Horse Chestnuts, American Sweet Chestnuts, Thorns, Ash (all varieties), Catalpas, etc.; Evergreens (all varieties and grades). Also a very complete line of **SHRUBS and ROSES**.

Can also make special prices on Apples, Peaches, Cherries, Plums, Standard Pears, Dwarf Pears, and Currants, in car load lots.

SPECIALTIES: Tree Currants, Gooseberries, Hydrangeas (tree shape), White Fringe, Dutchman's Pipe, Clematis, and Tree Roses, home grown.

Write for prices and testimonials on the Chautauqua Gooseberry; also on all the stock noted, believing they cannot be duplicated by any reliable house.

Address all communications to

J. FRANK NORRIS, - - Brighton Central Nurseries,
BRIGHTON, N. Y.

1865. ABOUT CLEMATIS. 1896.



AD. ED. ANDRE.

I wish to call the attention of Nurserymen, Dealers and Florists, who handle and sell Clematis, to this sterling novelty. I can cheerfully recommend it as being every way worthy of great consideration. Its color is very attractive, being a bright carmine crimson, and it is in fact the best and **only red** worthy of recommendation; a "*rara avis*" among clematis. For floriferousness nothing equals it, not even the redoubtable Jackmannii. I have without doubt the **largest stock in the world** to offer of it for **next fall**, also Jackmanni, Henryii, Ramona, Miss Bateman, Kermesina, Coccinea, Crispa, etc., in large quantities, **all from outdoor nursery grown plants**, free from blight and other defects.

Prices reasonable.

JOHN CHARLTON,

University Ave. Nurseries,

ROCHESTER, N. Y.

We offer to Nurserymen . .

Half-a-generation's active experience in printing and illustrating for their uses. We have thousands of the best illustrations, and the up-to-date ability to use them in producing Catalogues and Price-Lists of strong selling power.



Your New Fruit . .

Needs our help in getting it properly before the buying public. We can photograph it, make best illustrations or plates in black or color, prepare descriptions and suggest plans; we can print it into favor.

J. HORACE McFARLAND COMPANY,

PRINTERS FOR NURSERYMEN,

HARRISBURG, PA.



WE ARE EXPERTS
IN HORTICULTURAL PRINTING
AND ILLUSTRATING.

WE DON'T PRINT WOODEN LABELS OR MAKE PLATE BOOKS.

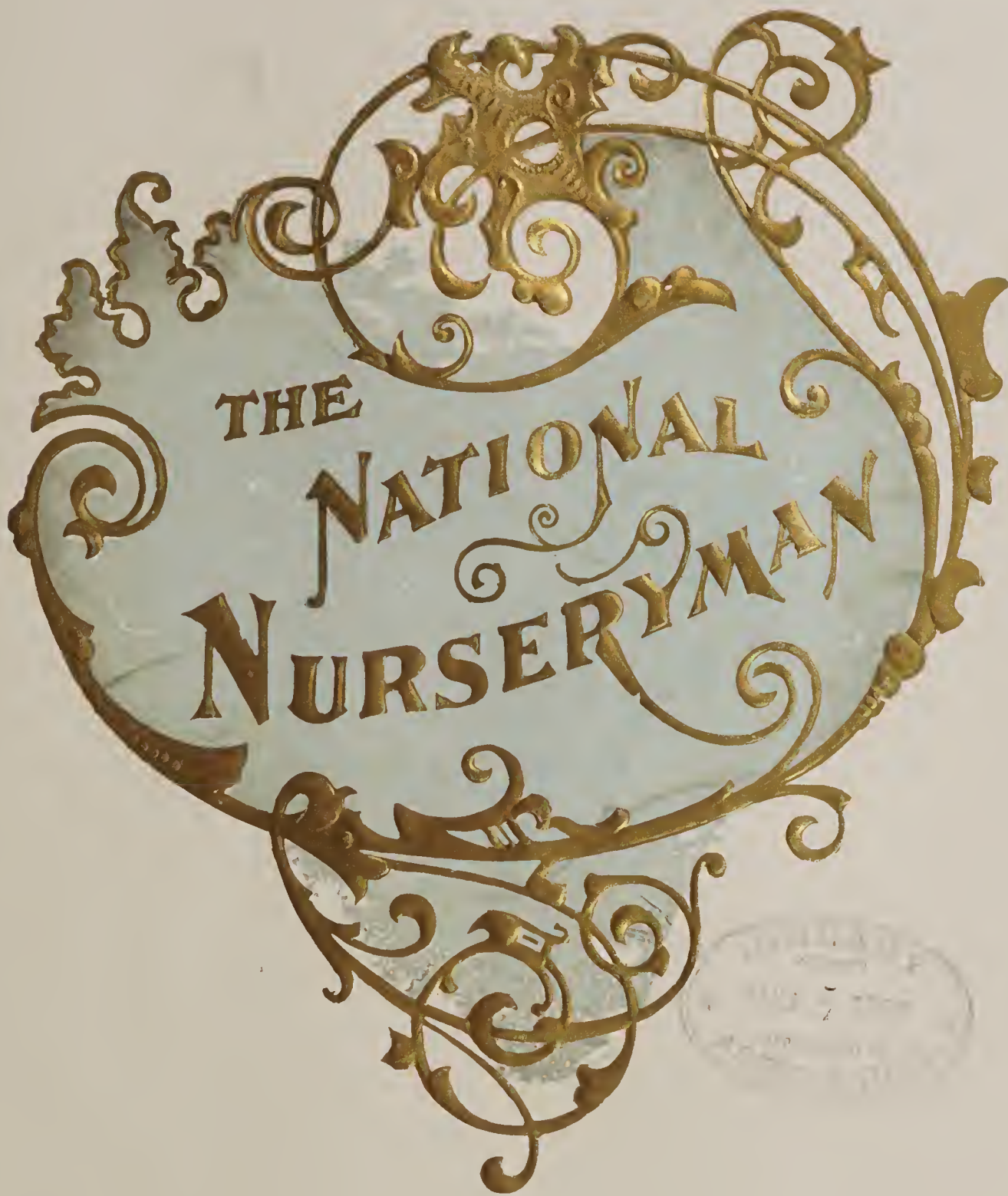
Photography in Colors . .

Is practically accomplished by our Coloritype Process, which presents nature's full form and coloring on the paper. See Pearl Gooseberry and Triumph Peach Plates, and other productions. We also make superior work on covers and plates from paintings or sketches.



For Midsummer Work . .

Both in Catalogue or other printing, or in engravings or illustrations, we make special prices. Much money can be saved by anticipating your fall and winter needs for catalogues, engravings or any printed matter. .



August, 1896.

Painesville Nurseries

For coming season offer their usual large and complete assortment
of Fruit and Ornamental Trees, Small Fruits and Grape Vines,
. Shrubs and Roses, Hardy and Tender Plants, Bulbs and Seeds .

Invite especial attention to our fine two-year blocks of STANDARD and DWARF PEARS, QUINCES, PLUMS, CHERRIES and APRICOTS.

One of the largest, handsomest, healthiest and best grown blocks of PEACH TREES in the United States.

For Fall delivery strong three-year plants of Industry, Keepsake, Lancashire Lad and Crown Bob Gooseberries.

Small Fruits in large supply, all the leading old and best of the newer introductions, including extra fine strongly rooted Blackberries from root-cuttings—Gault, Loudon, Miller's and Eureka Raspberries.

Ornamentals.

TREES.—Carolina, Lombardy and Golden Poplars; Norway, Ash-leaf and Silver Maple; European Linden, Purple Beech, Magnolias, Mountain Ash, Flowering Thorns, Willows, Etc.

In Weeping forms, fine stock of Birch, Cut-leaf and Young's; Tea's Mulberry, Cornus, Camperdown Elm, Linden and Willows.

SHRUBS.—Thrifty, clean, young stock, in all the leading and rare varieties.

CLIMBING VINES—Ampelopsis, Clematis, Honeysuckle, Wistaria, etc., strong two-year plants.

Our collection of Hardy Border Plants is one of the best.

French and Holland Bulbs direct from leading growers.

Roses.

Our strong two-year field-grown Hybrid Perpetual, Moss and Climbing Roses need no introduction; the best grown.

Orders stored in frost-proof cellars for early spring shipment, if desired.

It will pay you to see our stock and obtain our prices before placing your orders.

Trade List ready about September 1st. CATALOGUES FREE.

42nd YEAR. 1,200 ACRES. 29 GREENHOUSES.

THE STORRS & HARRISON CO.

PAINESVILLE, OHIO.

AMERICA'S GREATEST NURSERY.

ELLWANGER & BARRY,

Mount Hope Nurseries,

ESTABLISHED 1840.

ROCHESTER, N. Y.

Offer for Fall and Spring in addition to their usual large and complete collections of **General Nursery Stock**, the following leading Specialties:

CURRENTS, 2 years. fine. Cherry, Fay's, Versailles, Victoria, White Grape.

GOOSEBERRIES, No. 1, extra fine plants. Columbus, Downing, Industry, Triumph.

The new **RED RASPBERRY**, Superlative.

ELEAGNUS LONGIPES, the fine new ornamental fruit-bearing Shrub.

CRIMSON RAMBLER ROSES, dormant field grown plants; largest stock in the country.

The Grand New White Hybrid Perpetual Rose, **MARCHIONESS OF LONDONDERRY**, the newest and finest Hardy White Rose.

Large stock of **HARDY ROSES**, of the finest varieties, old and new.

Superb **FIELD GROWN PLANTS**, superior to the imported.

Fall Trade List issued August 1st, free on request. Special quotations on large lots. Correspondence Solicited.

TREES AND PLANTS

WHOLESALE
and RETAIL

200,000 PEACH TREES,
2,000,000 STRAWBERRY PLANTS,
100,000 BLACKBERRY,
500,000 RASPBERRY.

Ideal, Oriole and Lady Thompson Strawberry,
Miller, Loudon, Cuthbert, Columbian Raspberries,
Eldorado, Maxwell, Leader Blackberries.

All the old and new varieties, fine stock, low prices. Our catalogue free will save you money.

MYER & SON, - Bridgeville, Del.

For Fall of 1896, and Spring of 1897,

I will now accept **LOW PRICES** for large orders of C. L. W. Birch for Spring of 1897. Also for Silver Maples, Catalpa, Black Walnut, Std. and Dwarf Pears, and Quinces.

Customers write: "Your stock suits every time."

WRITE FOR PRICES.

JAY WOOD, - Knowlesville, N. Y.

When writing to advertisers mention The National Nurseryman.

The New Climbing Rose,



YELLOW RAMBLER (AGLAIA) is now offered by us for the first time in this country, and will, we are confident, prove to be the most valuable Rose novelty of recent years. It was

ORIGINATED BY A LEADING EUROPEAN ROSE GROWER, Mr. Peter Lambert, who has carefully tested it for *eight years* before putting it out. Mr. Lambert is probably the most prominent and successful Rose grower in all Europe, and his reputation for reliability is so high, that we immediately secured from him the sole privilege of introducing the rose in this country. This new Rambler is

THE HARDEST YELLOW CLIMBING ROSE yet introduced. It has withstood a prolonged temperature of zero and under without injury, and we believe that it can be grown anywhere that other roses succeed. It is

A BLOOD RELATION TO CRIMSON RAMBLER. The Yellow Rambler is the product of the Japanese "Polyantha Samentosa," fertilized with pollen of the "Reve d'Or." The former of these was undoubtedly a parent of the Crimson Rambler and the two are, therefore, very closely related as is further shown by their

SIMILAR FOLIAGE, GROWTH AND BLOOMING. The leaves are of much the same shape and color; the habit of growth is very vigorous, established plants making shoots 8 to 10 feet in a season; the flowers are borne in the same immense trusses as the Crimson Rambler, frequently as many as 120 to 150 blossoms in a single bunch.

THE COLOR IS A RICH GOLDEN YELLOW.

Well established plants from 2½ in. pots ready last of July.

Prices on application.

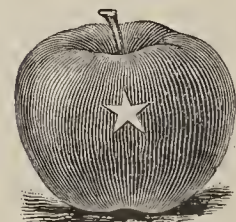
A splendid assortment of other **Roses, Clematis, Ornamentals, Small Fruit Plants** and **Fruit Trees** for Fall and Spring Shipment.

Our Trade List will be out soon—wait for it before placing your orders.

JACKSON & PERKINS,

Growers of Choice Specialties for Nurserymen and Dealers,

NEWARK, Wayne Co., NEW YORK.



Surplus.



PLUMS.—5,000 Willard, Abundance, Spaulding and Lincoln.

PEARS.—5,000 Koonce, Kieffer, Seneca, Lincoln Coreless, Japan Golden Russet.

APPLES.—A heavy stock of standard sorts. A limited supply of Starr, Parlin and Flora.

NUTS

CHESTNUTS.—*Alpha*, Opens Sept. 5 to 10, without frost.

Parry's Giant, 4 to 6 inches around; the largest known chestnut.

Pedigree Mammoth, Paragon, Gumbo, Ridgeley, &c.

WALNUTS.—French, Persian, Japan and English.

PECANS, ALMONDS, FILBERTS, SHELLBARKS.

NOVELTIES.

10,000 Eleagnus Longipes; 5,000 Matrimony Vines; 25,000 Trifoliate Orange, 1, 2 and 3 year; 10,000 Japan Wineberry; Japan Mayberries; Logan (Raspberry-Blackberry); Strawberry-Raspberry.

15,000 Imported Dwarf Rocky Mountain Cherry, 1 and 2 year.

10,000 Childs' Tree Blackberry—green plants, pot-grown.

10,000 Eldorado " " " "

10,000 Lovett's Best " " " "

A heavy stock of **Strawberries, Raspberries, Blackberries, Gooseberries** and **Currants**.

Shade Trees—POPLARS AND MAPLES.

SEND FOR SPECIAL PRICES.

All stock disinfected and free from insect or disease.

WM. PARRY, Pomona Nurseries,

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Harrison's Nurseries.

2,000,000 PEACH TREES, one year, from bud.

150,000 June Budded PEACH TREES.

PLUM AND APPLE TREES.

500,000 ASPARAGUS ROOTS.

And Millions of STRAWBERRY PLANTS
in season.

 SEND LIST OF WANTS.

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Loudon Red Raspberry, from root cuttings, strong.

Oliver Blackberry, best

100,000 Gladiolus, in 100 choice named varieties.

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5,000 Peonies, transplanted, 100 choice sorts named.

Lists Free.

E. Y. TEAS, Irvington, Ind.

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Offer for Fall '96, and Spring '97,

150,000 Apples.

35,000 Standard Pears.

30,000 Cherries.

10,000 Dwarf Pears.

50,000 Plums, 1 and 2 yrs., leading European and Japan varieties.

Also a good stock of APRICOTS, PEACHES, QUINCES, &c.

SPECIAL RATES ON CAR LOTS.

Buds and Scions in their season.

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DIRECT FROM THE PACKERS, AFRICAN FRENCH COLONIES.
Before buying elsewhere apply for quotations to
ANDRE L. CAUSSE,
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Peach and Plum Trees.

LARGE STOCK FOR FALL 1896.

Best Varieties—Old and New.

To buyers would say : personal inspection invited ; also correspondence solicited.

CAN ALSO SUPPLY

ASPARAGUS ROOTS

2 and 3 years strong, in any desired quantity.

ALEXANDER PULLEN,

Milford Nurseries, MILFORD, DEL.

The Sparta Nurseries

Are in need of some lines of Nursery Stock, and will sell their dry baled Moss, half in such stock, balance cash payment Dec. 1st. We have a general line of small fruit plants to offer, such as Strawberry, Raspberry, Blackberry and Currants; the leading Blackberry of the west—Ancient Briton. Also the high bush Cranberry, Juneberry and Huckleberry.

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ROCHESTER, N. Y.,

Wholesale Grower of Small Fruit Plants

... for Nurserymen and Dealers ...

We offer for the Fall of '96, the largest and most complete collection
in the world of high grade Small Fruit Plants.

SPECIALTIES:

Raspberries, Transplants, of all the leading kinds.

Blackberries, Root Cuttings, " " " "

Currants, one and two year, " " " "

Gooseberries, two year, " " " "

Introducer of the **Pearl**, the most prolific Gooseberry known. I have
the largest block of Currant and Gooseberry of any Nurseryman in the
United States.

If you do not receive my Wholesale Catalogue, send for it.
Ready August 1st.

P. S.—**Columbian Raspberries.**—I am growing a large stock of
this valuable new berry ; and I am "not in the combine" and
can therefore make my own prices. I guarantee my stock to be
the True Variety. Also growing this season Golden Mayberry,
Strawberry-Raspberry, and Logan Berry.

Tree Roses, Hardy Azaleas,



Rhododendrons, Clematis,



For October First Delivery.

ALSO A FINE LINE OF

Ornamental Trees, Shrubs, Vines,

Own Root 2-year Roses.

ALSO

STD. PEAR, PLUM AND PEACH,

IN CAR LOAD LOTS.

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PEACH, (including Crosby, Champion, Sneed) }
STANDARD PEAR, } In
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A FULL LINE OF GENERAL NURSERY STOCK.

NATURAL PEACH SEED

Very large packing sheds. Cold storage barn. The best facilities for proper packing, and prompt shipping.

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BUY THE BEST!

WHITNEY'S
IMPROVED

Western . .



Tree Digger.

MANUFACTURED BY

N. A. WHITNEY, Franklin Grove, Lee County, Ill.

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French Fruit Tree Stocks

Grown and Exported by

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GROWERS AND EXPORTERS OF FRENCH STOCKS.

Mahaleb, Mazzard, Myrobolan, Apple, Pear, Quince by the ten thousand or hundred thousand at lowest prices for carefully graded, well-grown stock.

ALSO FULL ASSORTMENT OF LEADING ORNAMENTALS.

Reliable stock. Superior Packing. Large, fine stock this season. Order early before sizes and varieties are exhausted. For advance Price Lists, &c, address

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NOTICE.

Any nursery firm desirous of selling their force of retail agents should correspond with us. We will pay a good price for salesmen.

Address "No. 100," care NATIONAL NURSERYMAN,
Rochester, N. Y.

CLIMBING ROSES.

BALTIMORE BELLE, QUEEN OF PRAIRIES,

ON OWN ROOTS.

Write me for prices on these Roses.

G. L. YATES, - Rochester, N. Y.

Buds • Buds • Buds

Do you need buds of the following varieties of peach:

"Fitzgerald," the new Canadian variety, undoubtedly the best Peach ever introduced.

"Lewis," "Gold Drop," Kalamazoo," "Crosby," "Elberta," "Early St. John," "Early Michigan," "Horton's Rivers," "Champion," "Conklin," and "Diamond," the finest cling in existence.

You have to have these varieties if you sell many trees in Michigan.

These buds are cut from as fine two and three year old orchard trees as can be found in America, are all bearing fruit, and I guarantee all true to name. Have been furnishing some of the best nurseries in the U. S. with their foundation and renewal stock for years, and know how to give satisfaction.

Send for Descriptive Priced Catalogue.

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BENTON HARBOR, MICH.

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Apple and Cherry

FOR FALL OF 1896.

PLUM BUDS—Abundance, Burbank, Satsuma.

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CHERRY BUDS—Ea. Richmond, Montgomery, Eng. Morello, Dyehouse.

Special Prices for early orders in car load lots.

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1840—1896

OLD COLONY NURSERIES.

Surplus Stock. Prices Low.

Berberis vulgaris; Berberis pupurea, and Berberis Thunbergii.

Beech, purple leaved seedlings, 4 to 5 feet.

Clethra, Ulmus Americanus, 8 to 9 feet.

Forsythia suspensa.

Hydrangea paniculata grandiflora.

Japan Pear. White Lilac. Linden, European. Maple, Norway.

California Privet, and many other desirable Trees and Shrubs.

Write for Prices.

T. R. Watson, - Plymouth, Mass.

The New White Gooseberry, CHAUTAUQUA,

Equals the finest and largest varieties in size, beauty and quality, and excels them all in vigor and yield.

HISTORY AND DESCRIPTION.

The Chautauqua was first found, several years ago, growing in the shade of some plum trees when our attention was attracted to it by the wonderful beauty and size of its fruit and robust habit of bush. We at once sent branches of it in fruit and leaf to noted Horticulturists for identification. Among them was the late Chas. Downing of Newburgh, N. Y. The report from each was that they did not recognize the variety, and that it probably is a seedling of a variety of the English type.

The first plants grown were planted on a warm gravelly loam in the shade of an apple and peach orchard; excepting a few which were sent to the New York State Experimental Station at Geneva, N. Y., for testing.

The bush of the Chautauqua is a very vigorous, stout, stiff, upright grower, having the usual complement of thorns. It should not be planted closer than four by six feet apart. Its leaves are large, glossy and dark green. Its fruit is of a beautiful light yellow color, perfectly free of spines and hair, veined and translucent, averaging in size 1 to 1½ inches in diameter, although we have often grown them 1½ inches long. It is rather thick skinned, but very sweet and of exquisite flavor.

The Chautauqua Gooseberry at the World's Fair.

At the World's Fair Exhibition there was perhaps the largest show of gooseberries ever made in this country. The Geneva Experiment Station has planted almost every known variety, both from Europe and America, and most of these were on exhibition. In competition with these were two plates of the Chautauqua Gooseberry which overshadowed everything on exhibition, either in the New York State exhibit or in any other exhibit, in size and beauty, and it was equal to anything exhibited in quality. It is safe to say that the Chautauqua is the largest gooseberry ever produced in this country; it is at the same time a remarkably vigorous grower and equally as great a bearer, being the most productive gooseberry in existence.

Report of the New York State Experiment Station: Director, Dr. Peter Collier,
GENEVA, N. Y., August 4th, 1893.

DEAR SIR:—The Chautauqua gooseberry has been fruited at this Experiment Station for several years. During this time it has been vigorous and productive. The fruit is large, smooth, pale yellow, very good and sweet. It belongs to a class of gooseberries commonly known as English gooseberries and like the English varieties and their seedlings it sometimes mildews. At this Station the mildew has been successfully treated for several years by spraying, and the finest English varieties have been kept practically free from this disease. To those who take the trouble to spray their gooseberries we can recommend the Chautauqua as one of the best varieties yet tested on our grounds. Very truly yours,
S. A. BEXEN, Horticulturist.

1000 Plants of the Chautauqua were sold before they were advertised, solely on the strength of what the parties had themselves seen of them.

In addition to the gooseberry spoken of, we offer a very large and complete assortment of **SHADE TREES** for private grounds and street planting, consisting of Elms, Maples, Carolina Poplars, Cut-leaf Weeping Birch, Magnolias, Lindens, Tulip Trees, Camperdown Elms, Kilmar-nock Weeping Willows, Purple Beech, Horse Chestnuts, American Sweet Chestnuts, Thorns, Ash (all varieties), Catalpas, etc.; Evergreens (all varieties and grades). Also a very complete line of **SHRUBS and ROSES**.

Can also make special prices on Apples, Peaches, Cherries, Plums, Standard Pears, Dwarf Pears, and Currants, in ear load lots.

SPECIALTIES: Tree Currants, Gooseberries, Hydrangeas (tree shape), White Fringe, Dutchman's Pipe, Clematis, and Tree Roses, home grown.

Write for prices and testimonials on the Chautauqua Gooseberry; also on all the stock noted, believing they cannot be duplicated by any reliable house.

Address all communications to

**J. FRANK NORRIS, - - Brighton Central Nurseries,
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THE DOWNING GOOSEBERRY.

We offer this season one of the largest and best grown stocks of Gooseberry Plants in the country—principally Downing, Smith's Improved, and Houghton's. Also, a splendid stock of Fay's Currants. Correspondence solicited.

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WE make the best
Fruit and Flower Plates.

WE are constantly adding
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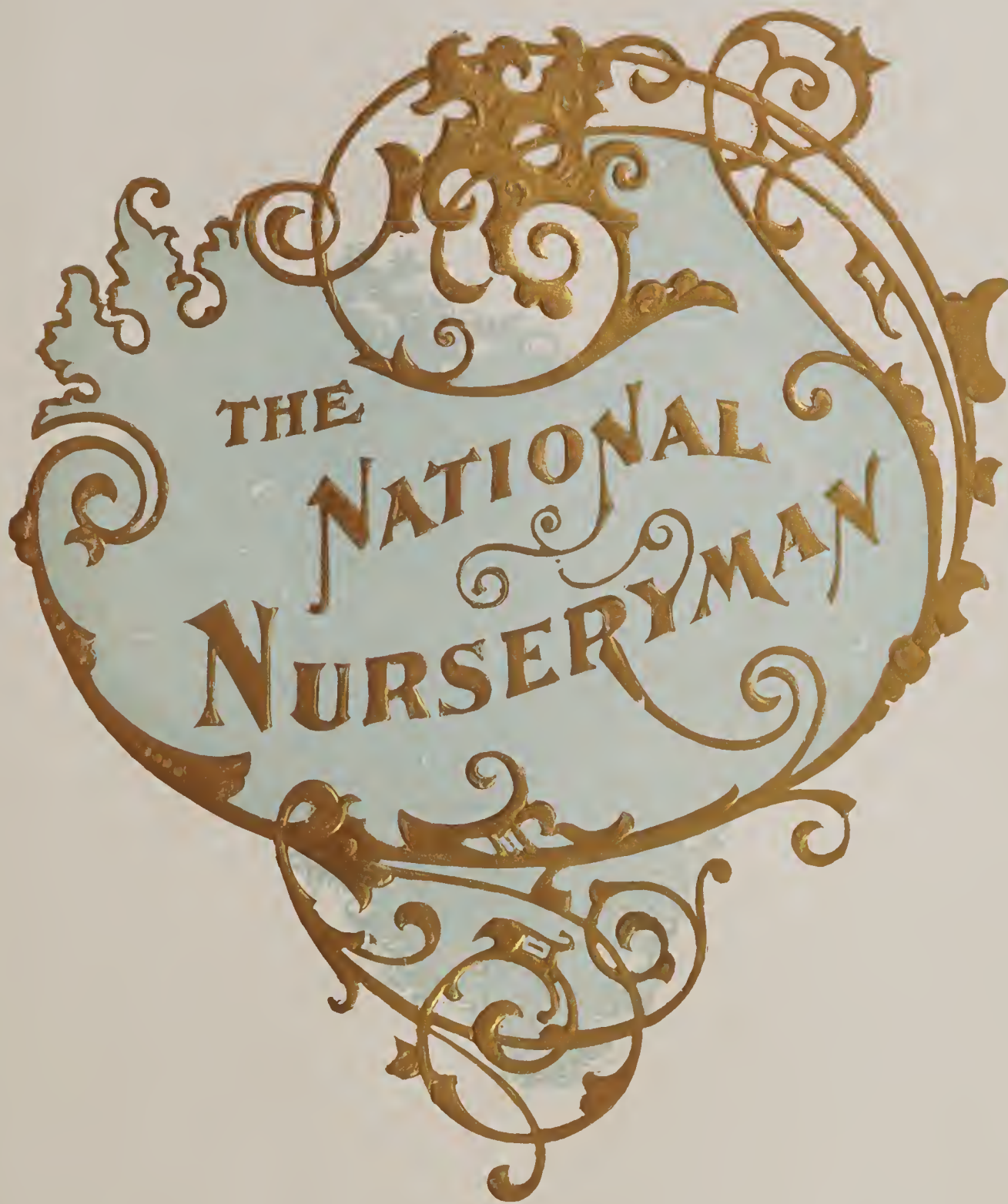
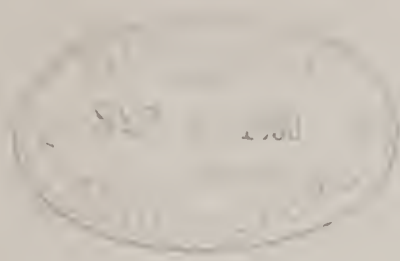
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September, 1896.

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For coming season offer their usual large and complete assortment
of Fruit and Ornamental Trees, Small Fruits and Grape Vines,
. Shrubs and Roses, Hardy and Tender Plants, Bulbs and Seeds. .

Invite especial attention to our fine two-year blocks of STANDARD and DWARF PEARS, QUINCES, PLUMS, CHERRIES and APRICOTS.

One of the largest, handsomest, healthiest and best grown blocks of PEACH TREES in the United States.

For Fall delivery strong three-year plants of Industry, Keepsake, Lancashire Lad and Crown Bob Gooseberries.

Small Fruits in large supply, all the leading old and best of the newer introductions, including extra fine strongly rooted Blackberries from root-cuttings—Gault, Loudon, Miller's and Eureka Raspberries.

Ornamentals.

TREES.—Carolina, Lombardy and Golden Poplars; Norway, Ash-leaf and Silver Maple; European Linden, Purple Beech, Magnolias, Mountain Ash, Flowering Thorns, Willows, Etc.

In Weeping forms, fine stock of Birch, Cut-leaf and Young's; Tea's Mulberry, Cornus, Camperdown Elm, Linden and Willows.

SHRUBS.—Thrifty, clean, young stock, in all the leading and rare varieties.

CLIMBING VINES—Ampelopsis, Clematis, Honeysuckle, Wistaria, etc., strong two-year plants.

Our collection of Hardy Border Plants is one of the best.

French and Holland Bulbs direct from leading growers.

Roses.

Our strong two-year field-grown Hybrid Perpetual, Moss and Climbing Roses need no introduction; the best grown.

Orders stored in frost-proof cellars for early spring shipment, if desired.

It will pay you to see our stock and obtain our prices before placing your orders.

Trade List ready about September 1st. CATALOGUES FREE.

42nd YEAR. 1,200 ACRES. 29 GREENHOUSES.

THE STORRS & HARRISON CO.

PAINESVILLE, OHIO.

Gooseberries

and

Currants.

Leading Varieties.

Extra Fine Plants.

ELLWANGER & BARRY,

Mount Hope Nurseries,

ROCHESTER, N. Y.

TREES AND PLANTS WHOLESALE and RETAIL

200,000 PEACH TREES,
2,000,000 STRAWBERRY PLANTS,
100,000 BLACKBERRY,
500,000 RASPBERRY.

Ideal, Oriole and Lady Thompson Strawberry,
Miller, Loudon, Cuthbert, Columbian Raspberries,
Eldorado, Maxwell, Leader Blackberries.

All the old and new varieties, fine stock, low prices. Our catalogue free will save you money.

MYER & SON, - Bridgeville, Del.

For Fall of 1896, and Spring of 1897,

I will now accept LOW PRICES for large orders of C. L. W. Birch for Spring of 1897. Also for Silver Maples, Catalpa, Black Walnut, Std. and Dwarf Pears, and Quinces.

Customers write: "Your stock suits every time."

WRITE FOR PRICES.

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THE NEW CLIMBING ROSE YELLOW RAMBLER (Aglaia)

Is now offered by us for the first time in this country, and will, we are confident, prove to be the most valuable Rose novelty of recent years. It was ORIGINATED BY A LEADING EUROPEAN ROSE GROWER, Mr. Peter Lambert, who has carefully tested it for eight years before putting it out. Mr. Lambert is probably the most prominent and successful Rose grower in all Europe, and his reputation for reliability is so high, that we immediately secured from him the sole privilege of introducing the rose in this country. This new Rambler is

THE HARDEST YELLOW CLIMBING ROSE yet introduced. It has withstood a prolonged temperature of zero and under without injury, and we believe that it can be grown anywhere that other roses succeed. It is

A BLOOD RELATION TO CRIMSON RAMBLER. The Yellow Rambler is the product of the Japanese "Polyantha Samentosa," fertilized with pollen of the "Reve d'Or." The former of these was undoubtedly a parent of the Crimson Rambler and the two are, therefore very closely related as is further shown by their

SIMILAR FOLIAGE, GROWTH AND BLOOMING. The leaves are of much the same shape and color; the habit of growth is very vigorous, established plants making shoots 8 to 10 feet in a season; the flowers are borne in the same immense trusses as the Crimson Rambler, frequently as many as 120 to 150 blossoms in a single bunch.

THE COLOR IS A RICH GOLDEN YELLOW.

Well established plants from 2½ in. pots ready now.

Prices on application.

OTHER ROSE NOVELTIES, including Lord Penzance's Hybrid Sweet Briars, Crimson Rambler, Margaret Dickson, Empress of China, Clio, Helen Keller, and a good assortment of the older kinds. Strong field-grown plants of all these.

CLEMATIS—Mme. Ed. Andre, crimson; Mme. Baron Veillard, pink; Graveolens, yellow. Also, Jackmanni, Henryii, Ramona, &c. Strong 2-year plants.

ORNAMENTALS.—A good assortment of the best shrubs and trees.

STANDARD PEARS—Extra handsome blocks. Good assortment of varieties. Will be sold at the going prices.

OTHER FRUIT TREES in good quantity and assortment.

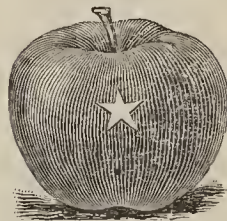
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Write for our Trade List.

JACKSON & PERKINS CO.

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Surplus.



PLUMS.—5,000 Willard, Abundance, Spaulding and Lincoln.

PEARS.—5,000 Koonce, Kieffer, Seneca, Lincoln Coreless, Japan Golden Russet.

APPLES.—A heavy stock of standard sorts. A limited supply of Starr, Parlin and Flora.

NUTS

CHESTNUTS.—Alpha, Opens Sept. 5 to 10, without frost.

Parry's Giant, 4 to 6 inches around; the largest known chestnut.

Pedigree Mammoth, Paragon, Gumbo, Ridgeley, &c.

WALNUTS.—French, Persian, Japan and English.

PECANS, ALMONDS, FILBERTS, SHELLBARKS.

NOVELTIES.

10,000 Eleagnus Longipes; 5,000 Matrimony Vines; 25,000 Trifoliate Orange, 1, 2 and 3 year; 10,000 Japan Wineberry; Japan Mayberries; Logan (Raspberry-Blackberry); Strawberry-Raspberry.

15,000 Imported Dwarf Rocky Mountain Cherry, 1 and 2 year.

10,000 Childs' Tree Blackberry—green plants, pot-grown.

10,000 Eldorado " " " "

10,000 Lovett's Best " " " "

A heavy stock of Strawberries, Raspberries, Blackberries, Gooseberries and Currants.

Shade Trees—POPLARS AND MAPLES.

SEND FOR SPECIAL PRICES.

All stock disinfected and free from insect or disease.

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PARRY, - - NEW JERSEY.

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2,000,000 PEACH TREES, one year, from bud.

150,000 June Budded PEACH TREES.

PLUM AND APPLE TREES.

500,000 ASPARAGUS ROOTS.

And Millions of STRAWBERRY PLANTS
in season.

We offer 1000 Bushels of Natural Tenn. PEACH SEED, guaranteed
pure and free from any taint of disease. Price quoted on application.

 SEND LIST OF WANTS.

HARRISON'S, - - Berlin, Md

Loudon Red Raspberry, from root cuttings, strong.

Ohmer Blackberry, best " " " "

100,000 Gladiolus, in 100 choice named varieties.

10,000 Wistarias, strong, in 4 choice varieties.

5,000 Pæonies, transplanted, 100 choice sorts named.

Lists Free.

E. Y. TEAS, Irvington, Ind.

C. F. McNAIR & CO.,

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Offer for Fall '96, and Spring '97,

150,000 Apples.

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30,000 Cherries.

10,000 Dwarf Pears.

50,000 Plums, 1 and 2 yrs., leading European and Japan varieties.

Also a good stock of APRICOTS, PEACHES, QUINCES, &c.

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Embraces the latest and most popular varieties of stock. Size 15 x 20 inches.
56 pages. Ruled in the most approved style; printed on heavy ledger paper,
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Peach and Plum Trees.

LARGE STOCK FOR FALL 1896.

Best Varieties—Old and New.

To buyers would say : personal inspection invited ; also correspondence
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CAN ALSO SUPPLY

ASPARAGUS ROOTS

2 and 3 years strong, in any desired quantity.

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Are in need of some lines of Nur-
sery Stock, and will sell their dry
baled Moss, half in such stock, bal-
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offer, such as Strawberry, Raspberry, Blackberry and Currants; the leading
Blackberry of the west—Ancient Briton. Also the high bush Cranberry,
Juneberry and Huckleberry.

Sparta, Wisconsin.

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Wholesale Grower of Small Fruit Plants

. . . for Nurserymen and Dealers . . .

We offer for the Fall of '96, the largest and most complete collection
in the world of high grade Small Fruit Plants.

SPECIALTIES:

Raspberries, Transplants, of all the leading kinds.

Blackberries, Root Cuttings, " " " "

Currants, one and two year, " " " "

Gooseberries, two year, " " " "

Introducer of the **Pearl**, the most prolific Gooseberry known. I have
the largest block of Currant and Gooseberry of any Nurseryman in the
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*If you do not receive my Wholesale Catalogue, send for it.
Ready August 1st.*

P. S.—**Columbian Raspberries**.—I am growing a large stock of
this valuable new berry ; and I am "not in the combine" and
can therefore make my own prices. I guarantee my stock to be
the True Variety. Also growing this season Golden Mayberry,
Strawberry-Raspberry, and Logan Berry.

Tree Roses, Hardy Azaleas,



Rhododendrons, Clematis,



For October First Delivery.

ALSO A FINE LINE OF

Ornamental Trees, Shrubs, Vines,

Own Root 2-year Roses.

ALSO

STD. PEAR, PLUM AND PEACH,

IN CAR LOAD LOTS.

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W. S. LITTLE & CO.,
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Syracuse Nurseries.

A large stock of a general assortment
of the following:

**Budded Apples,
Standard and Dwarf Pears,
Plums, Cherries, Peaches,
Roses, Ornamental Trees,
Shrubs and Vines.**

Superior quality, careful grading. Send us your want list or come
and see our stock.

We issue no trade price list, but are always glad to give prices,

SMITHS & POWELL CO., SYRACUSE, N. Y.

Our Specialties

This season consist of the leading articles now
most in demand. Our new trade list is more
complete this season than ever before, and every
wholesale purchaser of trees and plants should
procure a copy.

Whilst being very full in all the leading fruits,
it is especially rich in ornamental trees and
shrubs, with a grand collection of high-grade
roses.

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Apple Trees—Good stock, strong on northern sorts.

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PLUM, CHERRY, AND KEIFFER PEAR TREES.

Bechtel's Double Flowering Crab—Fine stock. Low prices.

WE ARE HEADQUARTERS FOR

Apple Seedlings—Good grades. Prices low.

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Correspondence
Solicited.

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I HAVE A LARGE QUANTITY OF one and two year

Fay's Currants

To offer at REDUCED RATES.

Write for prices, stating quantity wanted.

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Are headquarters for **EVERGREENS** and
DECIDUOUS TREES. We have a great
variety, and an immense stock. Send list
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Will exchange for Small Fruits, Hardy Shrubs, Clematis, &c.

EVERGREEN NURSERY CO., - Evergreen, Wis.

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Established upwards of a Century.

Nursery Stock

For Fall and Spring Delivery.

FOREST TREES: Seedling and transplanted, consisting
of Acacia, Ash, Birch, Beech, Black
Thorn, Chestnut, Elm, Scotch and
Spruce Fir, Laburnum, Lime, Maple, Sycamore, &c., &c.

Coniferae, Shrubs, Ornamental Trees.
Immense Stocks of all the best varieties.

Ampelopsis, Clematis, Hydrangea, Rhododendrons.

FRUITS a specialty. **CURRENTS**, red, black, and white.

GOOSEBERRIES. Enormous stocks of **INDUSTRY**, Keepsake,
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Etc., Etc.

Our sales of Industry Gooseberry up to the present for the coming
season are considerably in advance of last year's sales,—a strong in-
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ROSES. Hybrid Perpetual, Tea and Noisette, includ-
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HYBRID SWEET BRIARS.

FRUIT TREE AND ROSE STOCKS,
GOOD AND CLEAN GROWN.

Priced Lists on Application.

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Cable Address,
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WILL DELIVER NOW—Payable when Bryan is Elected President.

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Classifies 10,000 firms into four classes of
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Gives financial rating. Also number of
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Perhaps no work on earth is designed to save as much as this new revised
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We have your Directory, which does you credit and will be useful to all
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We find Directory very complete. Don't see how any Nurseryman could
well do without it.

[Pearmount Nurseries, Portland, Oregon.]

It is invaluable to every horticulturist in North America.

[The Pretty Lake Nurseries, Plymouth, Ind.]

We have had many Directories, but yours is the most complete and best
we have ever had. Enclosed find draft for \$13 for Directory and one page ad-
vertisement in same.

[Osage Nurseries, Osage, Iowa.]

Your Directory is a grand thing. We don't know how we could get
along without it.

[Model Nursery, Bristol, Ind.]

We want Revised Directory and page advertisement in same. Word
same as in first edition. We never had an investment to pay as well before.
We sold all we had and received orders for 100,000 plants besides.

WHETHER you sell all or part, and silver so plentiful, its worth 50 the
greater the value of the book. May we send it post-paid at once and wait
on you till Bryan is elected—if elected you are gainer, if defeated you get a
valuable work FREE. Open for 15 to 40 days at our option. Answer.

Also, **APPLE TREES** any grade to wholesale, in large assortment.

ADDRESS,

WHOLESALE NEW FRUIT NURSERIES, - - NEW FRUIT, KY.

When writing to Advertisers mention the National Nurseryman.

The New White Gooseberry, CHAUTAUQUA,

Equals the finest and largest varieties in size, beauty and quality, and excels them all in vigor and yield.

HISTORY AND DESCRIPTION.

The Chautauqua was first found, several years ago, growing in the shade of some plum trees when our attention was attracted to it by the wonderful beauty and size of its fruit and robust habit of bush. We at once sent branches of it in fruit and leaf to noted horticulturists for identification. Among them was the late Chas. Downing of Newburgh, N. Y. The report from each was that they did not recognize the variety, and that it probably is a seedling of a variety of the English type.

The first plants grown were planted on a warm gravelly loam in the shade of an apple and peach orchard; excepting a few which were sent to the New York State Experimental Station at Geneva, N. Y., for testing.

The bush of the Chautauqua is a very vigorous, stout, stiff, upright grower, having the usual complement of thorns. It should not be planted closer than four by six feet apart. Its leaves are large, glossy and dark green. Its fruit is of a beautiful light yellow color, perfectly free of spines and hair, veined and translucent, averaging in size 1 to 1½ inches in diameter, although we have often grown them 1½ inches long. It is rather thick skinned, but very sweet and of exquisite flavor.

The Chautauqua Gooseberry at the World's Fair.

At the World's Fair Exhibition there was perhaps the largest show of gooseberries ever made in this country. The Geneva Experiment Station has planted almost every known variety, both from Europe and America, and most of these were on exhibition. In competition with these were two plates of the Chautauqua Gooseberry which overshadowed everything on exhibition, either in the New York State exhibit or in any other exhibit, in size and beauty, and it was equal to anything exhibited in quality. It is safe to say that the Chautauqua is the largest gooseberry ever produced in this country; it is at the same time a remarkably vigorous grower and equally as great a bearer, being the most productive gooseberry in existence.

1000 Plants of the Chautauqua were sold before they were advertised, solely on the strength of what the parties had themselves seen of them.

In addition to the gooseberry spoken of, we offer a very large and complete assortment of **SHADE TREES** for private grounds and street planting, consisting of Elms, Maples, Carolina Poplars, Cut-leaf Weeping Birch, Magnolias, Lindens, Tulip Trees, Camperdown Elms, Kilmarnock Weeping Willows, Purple Beech, Horse Chestnuts, American Sweet Chestnuts, Thorns, Ash (all varieties), Catalpas, etc.; Evergreens (all varieties and grades). Also a very complete line of **SHRUBS and ROSES**.

Can also make special prices on Apples, Peaches, Cherries, Plums, Standard Pears, Dwarf Pears, and Currants, in car load lots.

SPECIALTIES: Tree Currants, Gooseberries, Hydrangeas (tree shape), White Fringe, Dutchman's Pipe, Clematis, and Tree Roses, home grown.

Write for prices and testimonials on the Chautauqua Gooseberry; also on all the stock noted, believing they cannot be duplicated by any reliable house.

Address all communications to

**J. FRANK NORRIS, - - Brighton Central Nurseries,
BRIGHTON, N. Y.**

Fruit Seeds and Seedlings, Native and Imported,

in large and small quantities. Order at once of the following: (Others ready later. Get prices.)

Native Apple Seedlings and Seed, Natural Peach, Mazzard Cherry and Myrobalan Plum Seed.

We also carry one of the largest stocks of general Ornamental, Deciduous Trees, Shrubs, Evergreens, Vines, Herbaceous Perennials, and Tree Seeds. Raffia. Nurserymen and Dealers should send their lists of wants and for our new catalogue, mentioning this paper.

THOMAS MEEHAN & SONS, Box F, - - GERMANTOWN, PA.

Grape Vines.

LARGE SURPLUS. Send List of Your Wants for Prices.

50,000 Moore's Early, get our prices on them.

100,000 each Taylor and Snyder Blackberries, put up expressly for nurserymen. All have cross roots, and tightly tied with two willows.

CORRESPOND WITH US.

EUGENE WILLETT & SON, - North Collins, N. Y.

MARIANA PLUM STOCKS.....

If you want to grow best Japans use Mariana Stocks. We have more of these than all others in America. Also **JAPAN PLUMS**, all sizes and variety. Thousands or car lots.

HALE GEORGIA ORCHARD COMPANY, - - FORT VALLEY, GEORGIA.

HERBAGEOUS PAEONIES: Over 30,000 Plants. 200 Varieties.

Carefully inspected when in bloom the last two seasons, and all mixtures noted. SEEDLINGS and mixed lots at LOW RATES.

Large Stock of PHLOX, IRIS, &c. Also several **NOVELTIES** of Sterling Merit.

Trade Circular early in September.

T. C. THURLOW, - West Newbury, Mass.

CAMPBELL'S EARLY GRAPE

That New Grape "**Campbell's Early**," will be introduced this Fall. The strongest grower we have ever seen or heard of. Buds stood 18° below zero at Experimental Farm of RURAL NEW YORKER. Has highest commendation from the most eminent authorities.

Best quality and best long keeper.

Hardy and very productive.

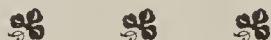
**Early as Moore's Early, but has hung on the vines
sound and firm, six to eight weeks after ripening.**

One of its best qualities is that its pulp is sweet and tender to the center, therefore the seeds need never be swallowed, and the "woods are full of people" who will not eat grape seeds. We propose to advertise and push this grape for all it is worth (and it is worth a great deal,) therefore, *it will be enquired for*. None genuine without our seals.

Colored Plates for Nurserymen FREE.

Remarks from RURAL NEW YORKER:

"I am really glad that I was the first to tell in print of this grand grape which in quality and appearance is the best native black grape we have ever seen. There is no acidity about the seed as there is in the Concord. As there is a growing and not ill-founded objection to swallowing grape-seeds, this is a strong point in its favor, etc."



Also the largest stock of **American Grape Vines** in the World. Not including stock plants, we planted over twenty acres of **Gooseberries** and **Currants** for coming Fall and Spring trade. Also Root-cutting **Blackberries**, **Raspberries** and **Strawberries**. Introducer of the unrivaled Red Jacket Gooseberry and the (now leading) Fay Currant.

GEO. S. JOSSELYN,
Fredonia, N. Y.

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DEPARTMENT OF
AGRICULTURE



October, 1896

Painesville Nurseries

For coming season offer their usual large and complete assortment
of Fruit and Ornamental Trees, Small Fruits and Grape Vines,
Shrubs and Roses, Hardy and Tender Plants, Bulbs and Seeds.

Invite especial attention to our fine two-year blocks of STANDARD and DWARF PEARS
QUINCES, PLUMS, CHERRIES and APRICOTS.

One of the largest, handsomest, healthiest and best grown blocks of PEACH TREES in
the United States.

For Fall delivery strong three-year plants of Industry, Keepsake, Lancashire Lad and Crown
Bob Gooseberries.

Small Fruits in large supply, all the leading old and best of the newer introductions, includ-
ing extra fine strongly rooted Blackberries from root-cuttings—Gault, Loudon, Miller's and
Eureka Raspberries.

Ornamentals.

TREES.—Carolina, Lombardy and Golden Poplars; Norway, Ash-leaf and Silver
Maple; European Linden, Purple Beech, Magnolias, Mountain Ash, Flowering Thorns,
Willows, Etc.

In Weeping forms, fine stock of Birch, Cut-leaf and Young's; Tea's Mulberry, Cornus
Camperdown Elm, Linden and Willows.

SHRUBS.—Thrifty, clean, young stock, in all the leading and rare varieties.

CLIMBING VINES—Ampelopsis, Clematis, Honeysuckle, Wistaria, etc., strong two-year
plants.

Our collection of Hardy Border Plants is one of the best.

French and Holland Bulbs direct from leading growers.

Roses.

Our strong two-year field-grown Hybrid Perpetual, Moss and Climbing Roses need no
introduction; the best grown.

Orders stored in frost-proof cellars for early spring shipment, if desired.

It will pay you to see our stock and obtain our prices before placing your orders.

Trade List ready about September 1st. CATALOGUES FREE.

42nd YEAR. 1,200 ACRES. 29 GREENHOUSES.

THE STORRS & HARRISON CO.

PAINESVILLE, OHIO.

Gooseberries

and

Currants.

Leading Varieties.

Extra Fine Plants.

ELLWANGER & BARRY,

Mount Hope Nurseries,

ROCHESTER, N. Y.

200,000 Peach Trees, | 100,000 Blackberry,
2,000,000 Strawberry Plants, | 500,000 Raspberries.
Eldorado, Maxwell, Leader Blackberries.

MILLER, LOUDON and
COLUMBIAN . .

TRIUMPH,
GREENSBORO,

Raspberries.

and a full
assortment of

Wickson and Red June

Peaches

PLUMS.

. . . . AND OTHER FRUITS.

Our Catalogue will save you money.

MYER & SON,

BRIDGEVILLE, DELAWARE.

For Fall of 1896, and Spring of 1897,

I will now accept LOW PRICES for large orders of C. L. W. Birch for Spring of 1897. Also for Silver Maples, Catalpa, Black Walnut, Std. and Dwarf Pears, and Quinces.

Customers write: "Your stock suits every time."

WRITE FOR PRICES.

JAY WOOD, - Knowlesville, N. Y.

When writing to advertisers mention The National Nurseryman.

THE NEW CLIMBING ROSE **YELLOW RAMBLER (AGLAIA),**
Is the *Hardest Yellow Climbing Rose.*

Other Rose Novelties, and a good assortment of common kinds.
CLEMATIS, ORNAMENTALS, CURRANTS, GOOSEBERRIES, GRAPE
VINES, FRUIT TREES, ETC.

Send for our Trade List.

JACKSON & PERKINS CO., Newark, Wayne Co., New York.

Surplus Stock.

FOR IMMEDIATE SHIPMENT.

STRAWBERRIES, all leading kinds. Any quantity. Finely rooted, and packed in light lath crates.

RASPBERRIES, 40 varieties. Tips, Transplants, and Suckers. Long on the following new kinds: **Columbia, Loudon, Miller, Earhart and Eureka.**

300,000 BLACKBERRIES, Root Cuttings and Suckers.

CURRANTS, GOOSEBERRIES and GRAPES, 1 and 2 years old; splendid assortment.

CUTTINGS for Fall planting. Special rates on 50,000 or 100,000 lots.

Everything Cheap.

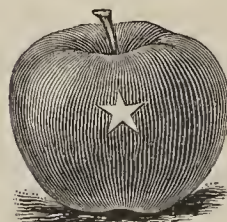
PRICE LIST FREE. CAN SHIP PROMPTLY.

W. N. SCARFF, New Carlisle, O.

The undersigned desires bids for **500 SILVER MAPLES.** Must be good and thrifty, and 3 to 4 years old.

S. D. WATSON,

MAYOR, COLONIAL BEACH, Va.



Surplus.



PLUMS.—5,000 Willard, Abundance, Spaulding and Lincoln.

PEARS.—5,000 Koonce, Kieffer, Seneca, Lincoln Coreless, Japan Golden Russet.

APPLES.—A heavy stock of standard sorts. A limited supply of Starr, Parlin and Flora.

NUTS

CHESTNUTS.—*Alpha*, Opens Sept. 5 to 10, without frost.

Parry's Giant, 4 to 6 inches around; the largest known chestnut.

Pedigree Mammoth, Paragon, Gumbo, Ridgeley, &c.

WALNUTS.—French, Persian, Japan and English.

PECANS, ALMONDS, FILBERTS, SHELLBARKS.

NOVELTIES.

10,000 Eleagnus Longipes; 5,000 Matrimony Vines; 25,000 Trifoliate Orange, 1, 2 and 3 year; 10,000 Japan Wineberry; Japan Mayberries; Logan (Raspberry-Blackberry); Strawberry-Raspberry.

15,000 Imported Dwarf Rocky Mountain Cherry, 1 and 2 year.

10,000 Childs' Tree Blackberry—green plants, pot-grown.

10,000 Eldorado

10,000 Lovett's Best

A heavy stock of Strawberries, Raspberries, Blackberries, Gooseberries and Currants.

Shade Trees—POPLARS AND MAPLES.

SEND FOR SPECIAL PRICES.

All stock disinfected and free from insect or disease.

WM. PARRY, Pomona Nurseries,

PARRY, - - NEW JERSEY.

When writing to advertisers mention The National Nurseryman.

Harrison's Nurseries. Extra Fine Plants.

200,000 PEACH TREES, one year, from bud.

150,000 June Budded PEACH TREES.

PLUM AND APPLE TREES.

500,000 ASPARAGUS ROOTS.

And Millions of STRAWBERRY PLANTS
in season.

We offer 1000 Bushels of Natural Tenn. PEACH SEED, guaranteed
pure and free from any taint of disease. Price quoted on application.

SEND LIST OF WANTS.

HARRISON'S, - - Berlin Md

Loudon Red Raspberry, from root cuttings, strong.

Ohmer Blackberry, best

100,000 Gladiolus, in 100 choice named varieties.

10,000 Wistarias, strong, in 4 choice varieties.

5,000 Paeonies, transplanted, 100 choice sorts named.

Lists Free.

E. Y. TEAS, Irvington, Ind.

HYDRANGEA

(PANICULATA GRANDIFLORA)

Our stock of this grandest of all Hardy Flowering Shrubs
is the largest in America. Choose from a stock of over
200,000 plants, all sizes from 10 to 12 inches up to 5 feet.

VIBURNUM PLICATUM

(NEW DOUBLE WHITE JAPAN SNOWBALL.)

A Superb Flowering Shrub. Both scarce and valuable; one
of the real good things worth having. All sizes, from 8 inches
up to 4 feet, at surplus-clearing prices. Ask for wholesale
catalogue, and prices given on application. Address

THE DINGEE & CONARD CO., West Grove, Pa.
ROSE GROWERS.

FIFTH EDITION.

NURSEYRYMEN'S STOCK BOOK.

Revised to Date.

Embraces the latest and most popular varieties of stock. Size 15 x 20 inches.
56 pages. Ruled in the most approved style; printed on heavy ledger paper,
and bound in heavy tag board. Price \$1.50 each.

SCRANTON, WETMORE & CO., Manufacturing Stationers,
ROCHESTER, N. Y.

Peach and Plum Trees.

LARGE STOCK FOR FALL 1896.

Best Varieties—Old and New.

To buyers would say: personal inspection invited; also correspondence
solicited.

CAN ALSO SUPPLY

ASPARAGUS ROOTS

2 and 3 years strong, in any desired quantity.

ALEXANDER PULLEN,

Milford Nurseries, MILFORD, DEL.

The Sparta Nurseries

Are in need of some lines of Nur-
sery Stock, and will sell their dry
baled Moss, half in such stock, bal-
ance cash payment Dec. 1st. We have a general line of small fruit plants to
offer, such as Strawberry, Raspberry, Blackberry and Currants; the leading
Blackberry of the west—Ancient Briton. Also the high bush Cranberry,
Junberry and Huckleberry.

Sparta, Wisconsin.

Z. K. JEWETT & CO.

Mention National Nurseryman when writing.

RASPBERRIES,
TRANSPLANTS,

GOOSEBERRIES,

AND CURRANTS.

LEADING VARIETIES.

Introducer of the Pearl Gooseberry.

I have the largest block of Gooseberries and Cur-
rants of any Nurseryman in the United States.

Get my Prices on Small Fruit Plants.

ALLEN L. WOOD,
ROCHESTER, N. Y.

OF INTEREST TO NURSEYRYMEN.

We shall have our usual stock of PEACH TREES for Fall
(1896) delivery. Are now ready to accept orders or make
special contract for June or Fall Budding.

=== BUDS for Sale in Season. ===

Also, large stock of ASPARAGUS and STRAWBERRY PLANTS.

It will pay you to correspond with us.

W. M. PETERS' SONS,
WESLEY, Md.

Wickson, Red June, Hale, Triumph, Sneed, Connecticut.

OVER 30 VARIETIES JAPANESE PLUMS. PEACHES IN VARIETY—NEW AND OLD.
ORIENTAL PEARS. A FULL LINE OF

SOUTHERN GROWN NURSERY STOCK

FOR ALL SECTIONS OF THE COUNTRY

GLEN ST. MARY NURSERIES.

G. L. TABER, GLEN ST. MARY, FLORIDA.

PEACH TREES By the 1,000
or Carloads.

We offer all the Standard varieties, including the three
new early varieties

Triumph, Greensboro, and Sneed.

We believe these will have a great future.

D. BAIRD & SON, - Manalapan, N. J.

When writing to advertisers mention the National Nurseryman.

Syracuse Nurseries.

A large stock of a general assortment of the following:

**Budded Apples,
Standard and Dwarf Pears,
Plums, Cherries, Peaches,
Roses, Ornamental Trees,
Shrubs and Vines.**

Superior quality, careful grading. Send us your want list or come and see our stock.

We issue no trade price list, but are always glad to give prices,

SMITHS & POWELL CO., SYRACUSE, N. Y.

Our Specialties

This season consist of the leading articles now most in demand. Our new trade list is more complete this season than ever before, and every wholesale purchaser of trees and plants should procure a copy.

Whilst being very full in all the leading fruits, it is especially rich in ornamental trees and shrubs, with a grand collection of high-grade roses.

Hoopes, Bro. & Thomas,

Maple Avenue Nurseries,
WEST CHESTER, PA.

Capital Nurseries, PETERS & SKINNER,
NORTH TOPEKA, KAN. Proprietors.

Apple Trees—Good stock, strong on northern sorts.

Peach—Including Crosby, Champion, Bokara and Greensboro.

PLUM, CHERRY, AND KIEFFER PEAR TREES.

Bechtel's Double Flowering Crab—Fine stock. Low prices.

WE ARE HEADQUARTERS FOR

Apple Seedlings—Good grades. Prices low.

Osage Seedlings. Pear Seedlings.

Correspondence
Solicited.

PETERS & SKINNER.

For Fall '96 and Spring '97.

Peach Trees

My own growing, the finest lot I ever raised on new land from natural seed, and best assortment.

WHITE BIRCH, CAROLINA POPLARS,

. . CALIFORNIA PRIVET, ETC. . .

JOSIAH A. ROBERTS, Malvern, Chester County, Pa.

When writing to Advertisers mention the National Nurseryman.



Established upwards of a Century.

Nursery Stock

For Fall and Spring Delivery.

FOREST TREES: Seedling and transplanted, consisting of Acacia, Ash, Birch, Beech, Black Thorn, Chestnut, Elm, Scotch and Spruce Fir, Laburnum, Lime, Maple, Sycamore, &c., &c.

Coniferae, Shrubs, Ornamental Trees.
Immense Stocks of all the best varieties.

Ampelopsis, Clematis, Hydrangea, Rhododendrons.

FRUITS a specialty. **CURRENTS**, red, black, and white.

GOOSEBERRIES. Enormous stocks of INDUSTRY, Keepsake, Lancashire Lad, Crown Bob, Whitesmith, Etc., Etc.

Our sales of Industry Gooseberry up to the present for the coming season are considerably in advance of last year's sales,—a strong indication that this Gooseberry is not losing its popularity.

ROSES. Hybrid Perpetual, Tea and Noisette, including all the finest varieties: Allister, Stella Gray, New Yellow Rambler.

HYBRID SWEET BRIARS.

FRUIT TREE AND ROSE STOCKS,
GOOD AND CLEAN GROWN.

Priced Lists on Application.

WILLIAM FELL & CO., Royal Seed and Nursery Establishment,
Cable Address, "FELL, Hexham. England."
HEXHAM, ENGLAND.

GRAPE VINES ALL OLD AND NEW VARIETIES.
Immense Stock, Warranted True.
QUALITY UNSURPASSED.
Prices lower than ever before. Send list of wants for prices.

STRAWBERRIES,
CURRENTS, GOOSEBERRIES,
AND OTHER
SMALL FRUIT PLANTS.
T. S. HUBBARD CO.,
FREDONIA, N. Y.

..The Paragon Chestnut.

Grafted Trees and Seedlings for Sale by the introducers,

H. M. ENGLE & SON, MARIETTA, PA.
Lanc. Co.

NURSERY STOCKS

OF ALL KINDS AND VARIETIES,

Such as Maples, Alder, Althea, Aucuba, White Birch, Catalpa, Honeysuckles, Nuts, Japan Quince, Deutzia, Ash, Broom, Walnut, Ligustrum, Philadelphus, Acacia, Currants, Willows, Sambucus, Spirea, Lilacs, Tamarix, Viburnum, Weigelia, and all sorts of Fruit Tree Stocks all 1, 2 or 3 years old or stronger plants, now offered at very low prices by

TRANSON BROTHERS NURSERIES,
BARBIER BROS & SON, Succrs.,

For price list apply to **ORLEANS, FRANCE.**

KNAUTH, NACHOD & KÜHNE, 13 William St., NEW YORK.

When writing to Advertisers mention the National Nurseryman.



Our Last Ad. before



Fall Packing.

Let us have your order. Good Stock and careful packing.
Low Prices.

A Full Line of Fruit and Ornamental Trees, Small
Fruits, Grape Vines, Shrubs, &c.



Especially:

A Full Line of strong H.-P. ROSES, 1-year
bud, or 2-year on own roots. Reasonable
price.

ST. PEARS, particularly Keiffer, which we offer *very cheap*.

BIRCH CUT-LEAF, MAPLE SILVER-LEAF, THORN, MT. ASH, POPLARS, HONEY
LOCUST, AMPELOPSIS VEITCHII, CLEMATIS, ARISTOLOCHIA SYPHO, CRIMSON-
EYED HIBISCUS, MAHONIA, TAMARIX, ETC.

Green Mountain Grape. Asparagus.

Industry Gooseberries.

3-year, extra, for immediate delivery.

2-year, " " Spring delivery.

Brown Brothers Company,

Continental Nurseries, - - - - - ROCHESTER, N. Y.



CAMPBELL'S EARLY GRAPE

That New Grape "**Campbell's Early**," will be introduced this Fall. The strongest grower we have ever seen or heard of. Buds stood 18° below zero at Experimental Farm of RURAL NEW YORKER. Has highest commendation from the most eminent authorities.

Best quality and best long keeper.

Hardy and very productive.

Early as Moore's Early, but has hung on the vines sound and firm, six to eight weeks after ripening.

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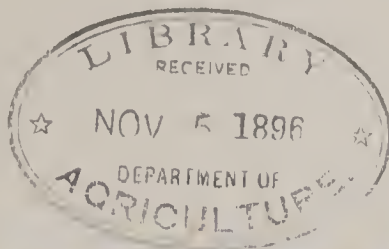
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GEO. S. JOSSELYN,
Fredonia, N. Y.



November, 1896.

Painesville Nurseries

For coming season offer their usual large and complete assortment
of Fruit and Ornamental Trees, Small Fruits and Grape Vines,
. Shrubs and Roses, Hardy and Tender Plants, Bulbs and Seeds

Invite especial attention to our fine two-year blocks of STANDARD and DWARF PEARS, QUINCES, PLUMS, CHERRIES and APRICOTS.

One of the largest, handsomest, healthiest and best grown blocks of PEACH TREES in the United States.

For Fall delivery strong three-year plants of Industry, Keepsake, Lancashire Lad and Crown Bob Gooseberries.

Small Fruits in large supply, all the leading old and best of the newer introductions, including extra fine strongly rooted Blackberries from root-cuttings—Gault, Loudon, Miller's and Eureka Raspberries.

Ornamentals.

TREES.—Carolina, Lombardy and Golden Poplars; Norway, Ash-leaf and Silver Maple; European Linden, Purple Beech, Magnolias, Mountain Ash, Flowering Thorns, Willows, Etc.

In Weeping forms, fine stock of Birch, Cut-leaf and Young's; Tea's Mulberry, Cornus, Camperdown Elm, Linden and Willows.

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42nd YEAR. 1,200 ACRES. 29 GREENHOUSES.

THE STORRS & HARRISON CO.

PAINESVILLE, OHIO.

Syracuse Nurseries.

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Osage Seedlings. Pear Seedlings.

Correspondence
Solicited.

PETERS & SKINNER.

North Topeka Nurseries. © ©

A. L. BROOKE, Proprietor.

**Apple Seedlings,
Japan Pear Seedlings, } Free from disease.
French Pear Seedlings,**

Apple, Cherry, Peach, Plum, Apricot, &c., Ready for Fall, 1896.

ASK FOR PRICES.

A. L. BROOKE, - - - NORTH TOPEKA, KANSAS.

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Currants, Willows, Sambucus, Spirea, Lilacs, Tamarix,
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all 1, 2 or 3 years old or stronger plants, now offered at
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Apple Seedlings,

Grown on new land and absolutely free
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Also OSAGE and HONEY LOCUST PLANTS, ROCKY MOUNTAIN DWARF CHERRIES; a large stock of SHADE TREES large and small,

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Correspondence Invited.

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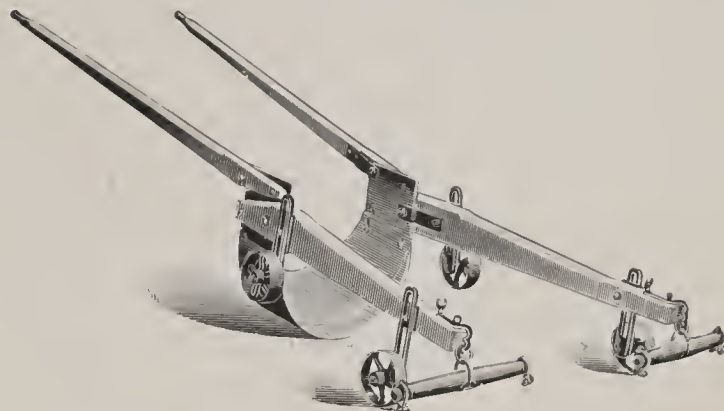
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(39th Year.)

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We solicit correspondence.



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•Common Sense Tree Digger•

Is known by leading nurserymen in every State in the Union, Canada and Europe. Comments are unnecessary, as all admit that the Common Sense Digger is the boss. We ship the Digger on trial, and should it prove unsatisfactory, Bragg pays the return freight.

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If you have other nursery stock you wish to exchange for above, send us list of same.

We also have an immense stock of June budded Peach Trees, Triumph, Sneed, and other standard varieties.

Prices Very Low. Write at once.

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Japan Plum and June Budded Peach.

Triumph, Greensboro, Sneed, Elberta, and all common varieties.

DELIVERED in New York, Philadelphia or Baltimore.

Over 100,000 Japan Plums in leading varieties from 3-4 in. down. Finest lot of Japan Plums ever grown.

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The Coming Gooseberry!

Letellier's Improved Spineless.

Horticultural science conquers nature, to benefit and enrich the fruit grower.

MONEY SAVED, LABOR HERETOFORE DREADED, NOW A PLEASURE.

The efforts of Mr. Billard the seedsman, of France, have been *rewarded with success* in the production of

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SPINELESS AND FREE FROM MILDEW.

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They are Entirely Free from Thorns.

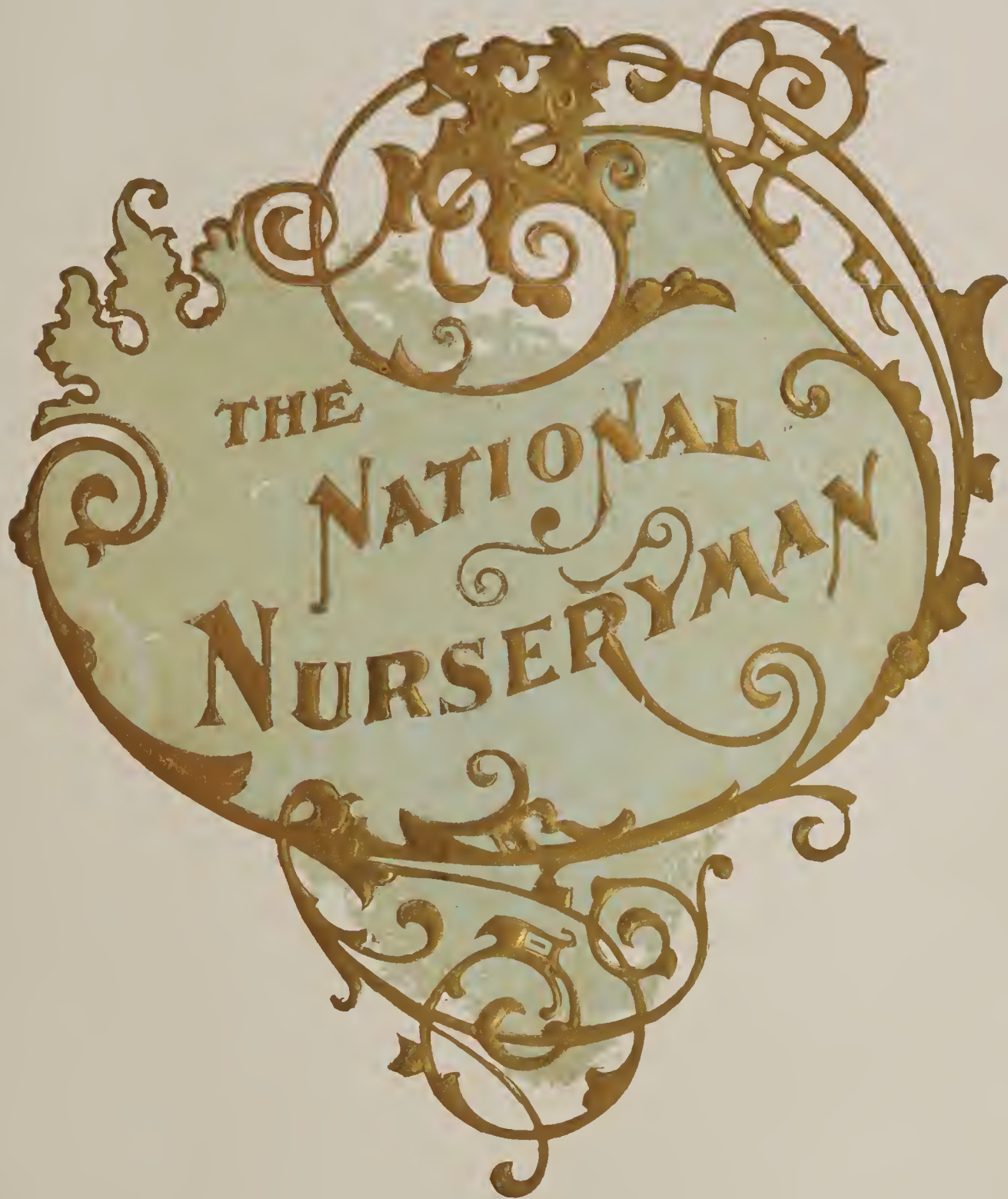
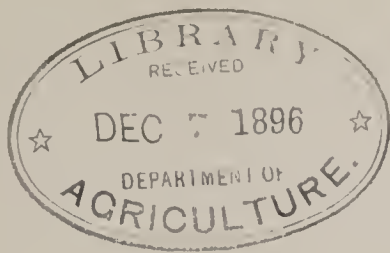


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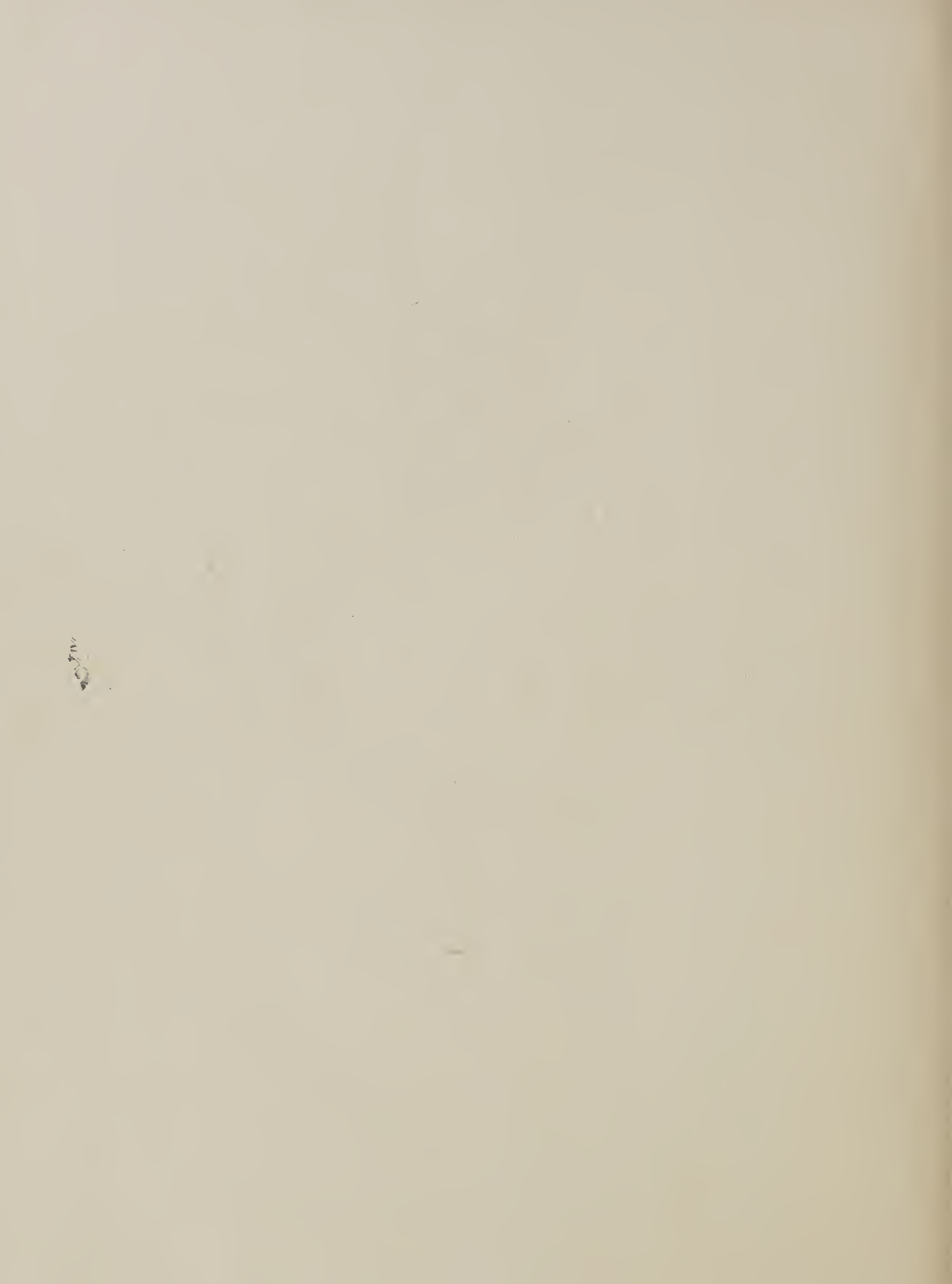
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Small Fruits in large supply, all the leading old and best of the newer introductions, including extra fine strongly rooted Blackberries from root-cuttings—Gault, Loudon, Miller's and Eureka Raspberries.

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Orders stored in frost-proof cellars for early spring shipment, if desired.

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Gooseberries

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Extra Fine Plants.

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75,000 Cyclone,	800,000 Warfield,
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250,000 Brandywine (Late),	300,000 Bubach,
250,000 Ocean City,	250,000 Dayton,
150,000 Parker Earl,	900,000 Haverland,
600,000 Mitchel's Early,	600,000 Lady Thompson,
40,000 Princess,	100,000 Wilson,
20,000 Edgar Queen,	200,000 Saunders,
600,000 Beeder Wood,	300,000 Sharpless,
50,000 Rio,	150,000 Greenville,
125,000 Woolverton,	150,000 Enhance,
150,000 Berlin,	100,000 Meeks' Early,
150,000 Jessie,	900,000 Crescent,
800,000 Lovett,	40,000 Mary,
20,000 Timbrell,	25,000 Marshall,
25,000 Belle,	25,000 Splendid,
150,000 Barton's Eclipse,	40,000 Capt. Jack,
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100,000 Beverly,	25,000 Van Deman,
20,000 Bismark,	20,000 Giant,
10,000 Arrow,	15,000 Weston,
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Ohmer Blackberry, best " " " "
100,000 Gladiolus, in 100 choice named varieties.
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By the 1,000
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We offer all the Standard varieties, including the three new early varieties

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We believe these will have a great future.

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Standard Pear.

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Correspondence Invited.

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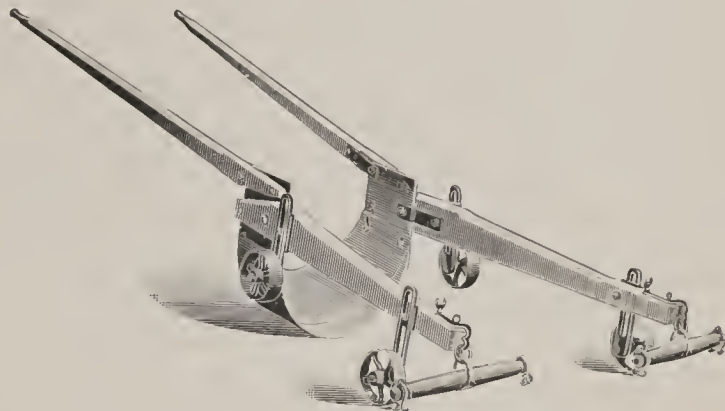
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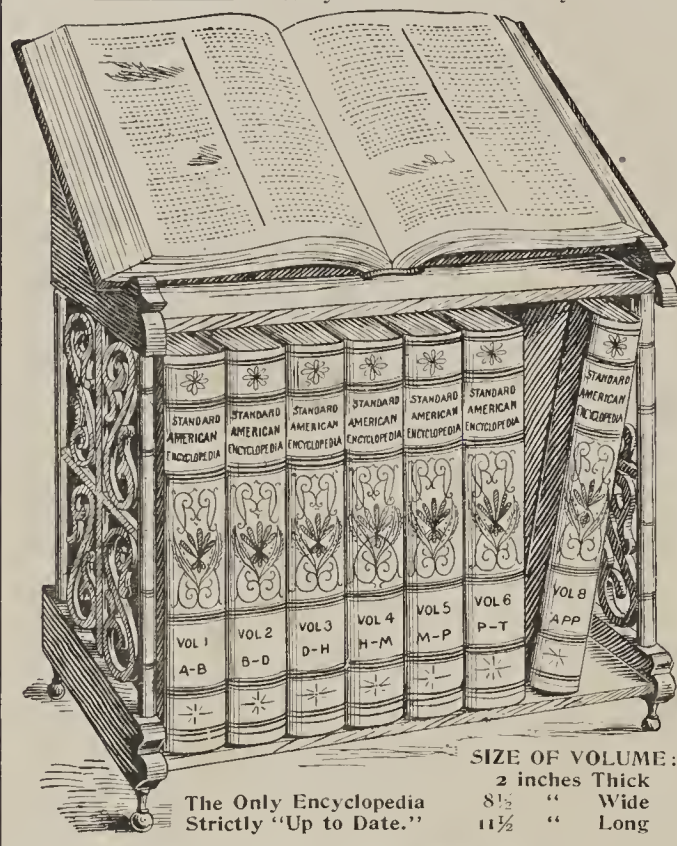
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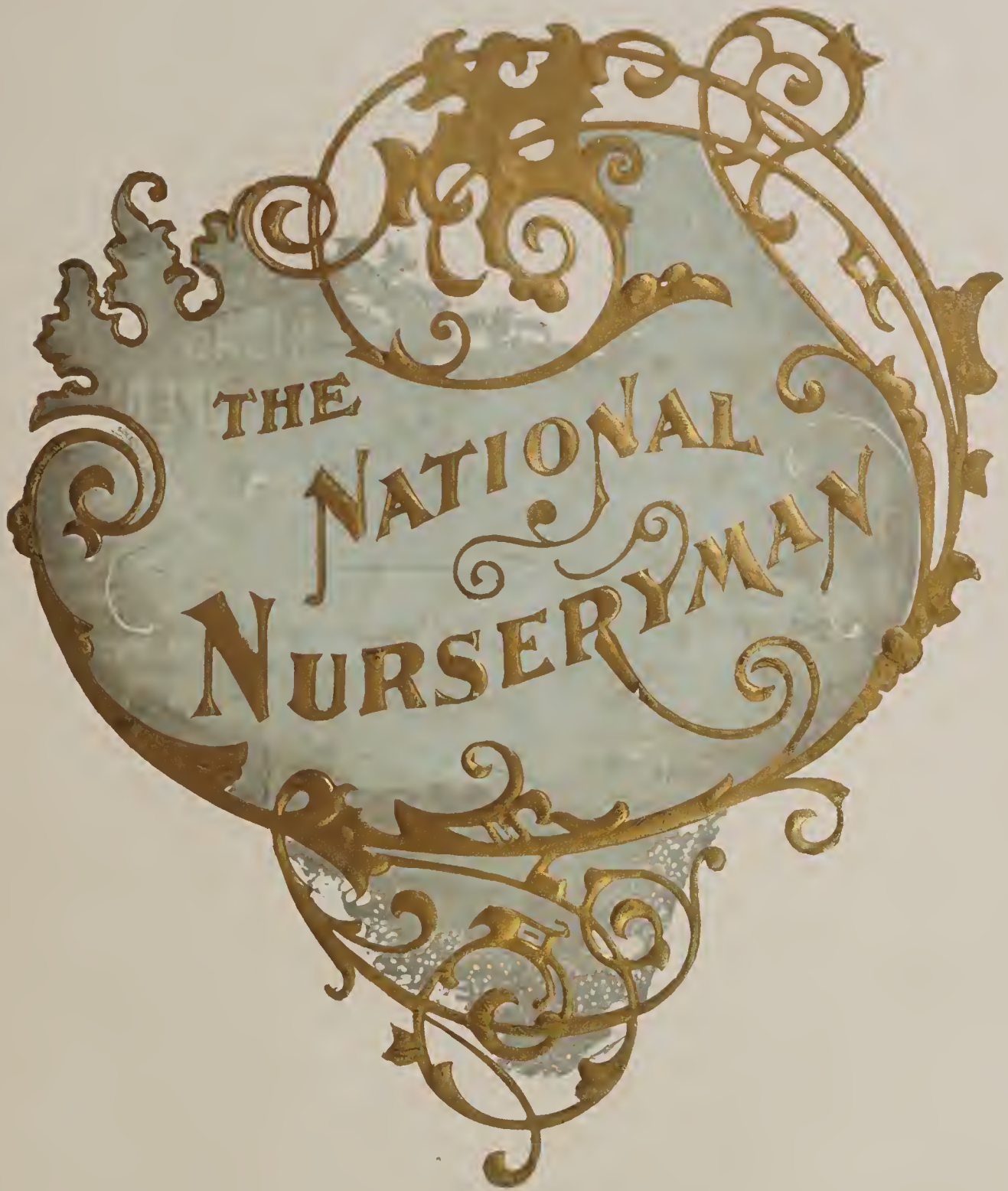
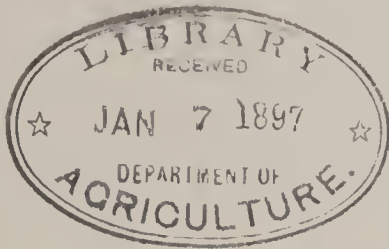
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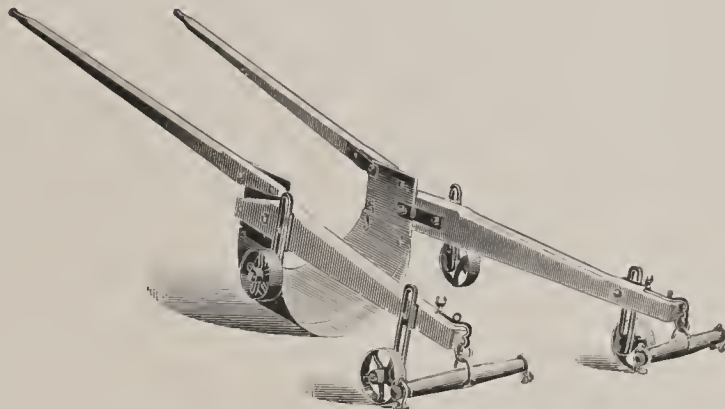
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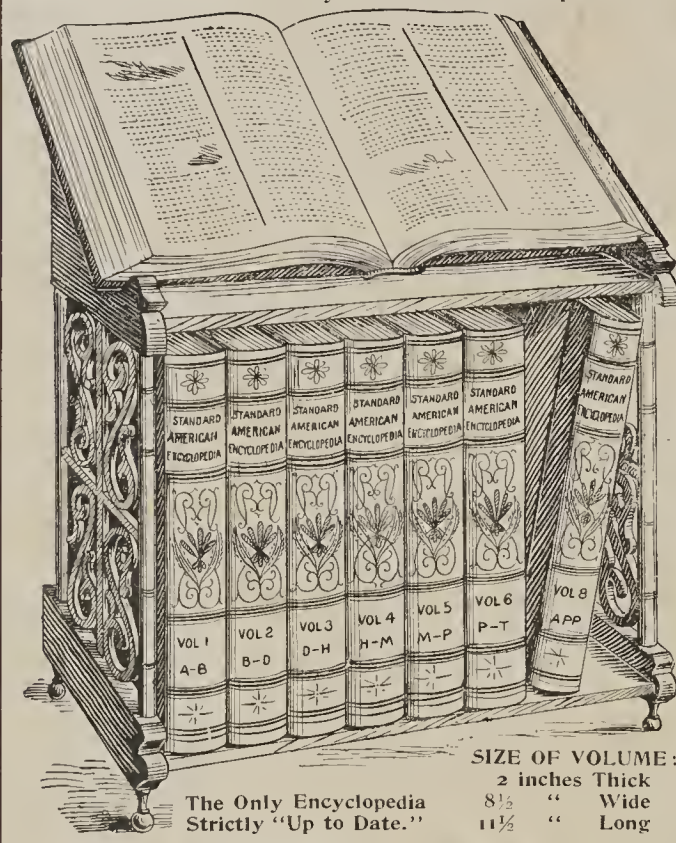
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